REPORT RESUMES

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SURVEY OF EDUCATIONAL MEDIA RESEARCH IN THE FAR EAST, INSTRUCTIONAL USES AND RESEARCH DIRECTION, STUDY 3--NEW MEDIA FOR INSTRUCTION.
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A SURVEY WAS CONDUCTED IN ASIA TO LEARN OF DEVELOPMENTS IN EDUCATIONAL MEDIA RESEARCH AND EXPERIMENTATION. THE PURPOSE OF THE PROJECT WAS TO COMPILE, TRANSLATE, AND PUBLISH EDUCATIONAL MEDIA MATERIALS FROM THE MAJOR ASIAN COUNTRIES AND TO MAKE THE INFORMATION AVAILABLE IN THE UNITED STATES. THE PRINCIPAL INVESTIGATOR VISITED 20 COUNTRIES IN THE FAR EAST AND THE SOUTH PACIFIC. DURING THESE VISITS, 10 COUNTRIES WERE SELECTED TO PARTICIPATE DIRECTLY IN THE SURVEY, AND A LOCAL REPRESENTATIVE WAS SELECTED AS THE PROJECT ADVISER. EACH ADVISER COLLECTED MATERIALS AND FORWARDED REPORTS TO THE TOKYO OFFICE FOR A PERIOD OF 10 MONTHS. THE REPORTS WERE COMPILED AND DISCUSSED DURING A 1-WEEK CONFERENCE IN TOKYO. INCLUDED IN THE FINAL REPORT IS A BRIEF OVERVIEW OF THE EDUCATIONAL SITUATION IN THE FAR EAST, A COUNTRY-BY-COUNTRY DESCRIPTION OF EDUCATIONAL MEDIA PROGRESS, A SUMMARY OF THE CONFERENCE, AND RESEARCH ABSTRACTS AND CASE STUDIES. IT WAS DISCOVERED THAT NATIONAL AUDIOVISUAL PROGRAMS HAVE BEEN ESTABLISHED IN MOST ASIAN COUNTRIES. THEY ARE USUALLY INFLUENCED AND SUPPORTED BY AMERICAN AID AND FUNCTION AT THE HIGHER ADMINISTRATIVE LEVELS OF EDUCATION. ONLY IN THE CASE OF JAPAN HAS THERE BEEN EXTENSIVE LOCAL INFLUENCE. (JC)

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Survey of
Educational Media Research
in the Far East

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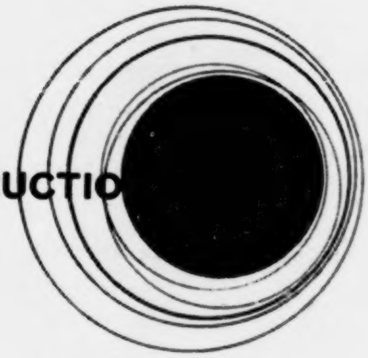

Survey of
Educational Media Research
in the Far East

Instructional Uses and Research Direction

Edited by
Benjamin C. Duke
Principal Investigator

for the

Audio-Visual Center
International Christian University
Tokyo, Japan

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CONTENTS

Page
INTRODUCTION v

I. EDUCATION IN THE FAR EAST 1

II. EDUCATIONAL MEDIA IN THE FAR EAST AND SOUTH PACIFIC 11
- Australia 11
- Federation of Malaya 17
- India 25
- Indonesia 32
- Japan 38
- New Zealand 59
- Philippines 67
- Republic of China 73
- Republic of Korea 79
- Thailand 88

III. INTERNATIONAL EDUCATIONAL MEDIA RESEARCH 95

IV. RESEARCH ABSTRACTS AND CASE STUDIES 100
- Research Abstracts 100
  - Radio 100
  - Television 115
  - Film 129
  - Slides 140
  - Tape Recording 144
  - Kamishibai 145
  - Still Pictures 146
  - Language Laboratory 148
  - Teaching Machines and Programmed Instruction 149
  - Cross Media 155
- Case Studies 160

APPENDIX. Directory of Organizations Conducting or Capable of Conducting Media Research in the Far East and South Pacific 175

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INTRODUCTION

The International Christian University conducted this Survey under a contract with the United States Office of Education. Professor Mitoji Nishimoto, Director of the University Audio-Visual Center, served as Director of the Project; Dr. Benjamin C. Duke, Assistant Professor of Education, served as the Principal Investigator; and Mr. Junichi Kawashima, University Assistant, served as the Project Assistant.

Educational media research and experimentation is interpreted to include experimental programming, testing, evaluation, and use of all the newer media of communication including broadcast and closed-circuit television, radio, motion pictures, audio recordings, slides, filmstrips, and other projected materials. The primary purpose of the Project was to compile, translate, and publish educational media research material from the major Asian countries and to make that information available in the United States. The Project was originated in February of 1961 and completed in June of 1962. During that period the Principal Investigator made a firsthand investigation in each of 20 countries in the Far East and the South Pacific from Korea to Pakistan to New Zealand. At the time of these visits ten countries were selected to participate directly in the Survey and a local representative was selected as the Project Advisor.

Each Advisor collected material and forwarded reports to the Tokyo office for a period of ten months. In April of 1962 the ten Advisors met on the campus of the International Christian University in Tokyo for a one-week conference to compile the reports and discuss the potentialities of conducting international media research.

Section I is a brief report of the over-all educational situation in the Far East. It was felt that an appreciation of educational media research developments in Asia could not be understood without a frame of reference; that is, the educational setting in which the developments are taking place. Section II is a country-by-country report of educational media progress written by the individual Advisors. Section III is a summary of the deliberations of the Tokyo conference of Advisors concerning the potentialities of conducting international media research and experimentation in Asia. Section IV is the compilation of the research abstracts and case studies. 'Case Study' in this report is interpreted to include informal experimentation and unique developments in the media field from which other countries could benefit.

The countries and the Advisors who participated directly in this Project are:

Australia--Herbert O. Howard, Royal Australian Air Force, Melbourne

India--G. K. Athalye, Director, National Audio-Visual Institute, New Delhi

Indonesia--F. Situmorang, Director, National Teaching Aids Center, Bandung

Japan--Mitoji Nishimoto, Director, Audio-Visual Center, International Christian University, Tokyo

Malaya--Victor Jesudoss, Secretary for Audio-Visual Services, Ministry of Education, Kuala Lumpur

New Zealand--Walter Harris, Director, National Film Library, Wellington

Philippines--Rosario Tan, Administrator,
Audio-Visual Center, Bureau of Public
Schools, Manila

Republic of China--Chia Chun Liu, Senior
Specialist, Audio-Visual Section,
Ministry of Education, Taipei

Republic of Korea--Lee Yong Kul, Director,
Demonstration Audio-Visual Center,
Ministry of Education, Seoul

Thailand--Ambhorn Meesook, Director,
Division of Educational Information,
Ministry of Education, Bangkok

I. EDUCATION IN THE FAR EAST

Benjamin C. Duke

Asia and Asian education is in transition. A decade and a half ago nearly every Far Eastern nation was under the rule of a foreign power. In the few short years since the end of the Pacific War, Japan withdrew from its wartime conquests and lost its old colonies of Taiwan and Korea; India, Pakistan, Burma, Ceylon, and Malaya received their independence from Great Britain; France lost Cambodia, Laos, and Vietnam; the Dutch were forced out of Indonesia; and the United States withdrew from Occupied Japan and the Philippines. Thus this vast area from Korea to Pakistan to Indonesia is now undergoing a unique experience--that of transforming itself from subjugation into free and independent nations.

This transitional period is evidenced in every phase of national life. There is a new outlook and purposefulness which is gaining momentum in the majority of Asian countries. Nowhere are the manifestations of this new hope and endeavor expressing themselves so clearly as in the schools. And in no other aspect are the enormous problems facing each Asian country so glaringly evident. As a result, one overriding conclusion can be made: the truly significant and remarkable feature concerning Asian education is that it is able to progress in the face of the monumental problems being encountered.

Excluding New Zealand and Australia, which were included in this Project but cannot be considered as Far Eastern countries, Japan is the only country in the Far East with a highly developed national system of education.

Benjamin C. Duke, Ph. D., PennsylvaniaState University, is Assistant Professor of Education at the International Christian University, Tokyo. As Principal Investigator of this Project, Dr. Duke made a firsthand investigation in 20 Far Eastern countries.

Every other country is decades behind Japan in its educational development. To gain some appreciation of the educational situation in Asia and thereby have a better understanding of the role of educational media, several of the problems hindering educational progress in the Far East will be considered.

First of all there is the extreme poverty. If they had a sufficient financial base, Asian countries could support developed school systems. The argument, however, is also given that Asia is poverty stricken because education is undeveloped. In effect this is the vicious cycle confronting Asia which prompts us to turn to other obstacles hindering the advancement of Asian education.

An important factor stems from the history of colonialism. The only two countries in the Orient not under a foreign power up to 1945 were Japan and Thailand. During the colonial period there were two distinct systems of education in most countries. One was established for the colonial administrators which usually included a few select natives and ranged from elementary to higher education. The second system accommodated a small percentage of natives for elementary school, terminating after three to six years of formal schooling. This means that today the adults of the age who should be the experienced leaders and teachers are limited in number because their educational opportunities either came during the colonial period and were restricted, or during the war when education was disrupted. As a natural consequence there is an acute shortage of trained and experienced teachers and educational leaders in many Asian countries. A notable exception is Japan which has a trained teacher surplus.

Certainly another formidable obstacle to educational improvement is the multiplicity of languages within national boundaries. For example, because there are many regional dialects in the Philippines, the national system of education is conducted from the third grade on in the medium of English. When visiting an average classroom you can detect difficulty, particularly with student recitation, since neither the teacher nor any of the students probably speaks

English as a native tongue. This means that the Philippine national system of education is conducted in a foreign language--a remarkable situation.

No Western country conducts its education in a foreign language. In Asia millions of students in many countries must complete their entire education, or a significant portion thereof, in a foreign language. Malaya and India are the other two outstanding examples of countries which conduct much of their education in a foreign language. In Calcutta, for example, a student must learn the local language of Bengalese as his native tongue, the national Indian language of Hindi, and English since the University will probably use English as the medium of instruction. Japan is one of two or three exceptions in Asia where the same language is spoken by 100% of the people, which undoubtedly has been an important factor in its advanced system of education.

The plethora of languages within each country can be attributed to the diversity of ethnic groups. In varying degrees, the multiplicity of ethnic peoples has caused not only problems in communication with separate languages but, since receiving independence, has placed a severe strain on the central governments to effect a body politic. When it comes to education it is an extremely difficult task for the majority ethnic group to conduct a national system of education for different ethnic groups that do not recognize the central government. Burma and Indonesia are two glaring examples of this problem.

The "Overseas Chinese" present a peculiar but related educational problem in more than half of the Asian countries. Over the centuries millions of Chinese have spread out from their homeland, either voluntarily or by force, and have settled in large numbers in many countries. It is estimated that there are now 15 million Chinese living in Asia outside of mainland China and Taiwan. The most virile racial minority in each large nation, except Japan, is Chinese. In a number of nations, notably Indonesia and Thailand, they have slowly taken over much of the national commercial and business field.

An educational problem the Overseas Chinese present is that they have attempted to maintain the cultural heritage, language, and customs of China. This has been encouraged by both the Republic of China and the Chinese Communists; at the same time both Taipei and Peiping have appealed to the Overseas Chinese to cooperate with the governments of their countries of residence. Chinese schools, especially primary schools, are established and maintained by local Chinese organizations. In some countries, these organizations and schools are subject to extensive Chinese Communist influence and pressure; in other countries, there is little, if any, such influence. Local governments and school officials have been insisting that the Chinese schools become indigenous. Thus, the Overseas Chinese are under constant pressure from several directions. These divided loyalties make it extremely difficult to develop a national system of education in countries with large Chinese populations.

Distance and its accompanying problem of communication and transportation have been hindering the progress of education in many Asian countries. In particular, India, Pakistan(East and West), Burma, Philippines,and Indonesia face severe difficulties in controlling from the capital city an educational system which is spread over a huge area including vast inaccessible regions. The fact that every Asian country has a centralized system of education makes the element of distance play a very significant role in education. It can readily be seen that these related problems of distance and lack of communication and transportation, which are hindering many Asian countries, are not significant in Japan, the United States, or Europe.

The postwar developments in the "Cold War" have also resulted in a severe strain in the Asian educational world. Nearly every country except Japan has found it necessary to support an inordinately large standing army, draining the national treasury. This in turn leaves a very small percentage of funds for the schools. In actual fact there is only one Far Eastern country that can afford an army, and that is Japan which maintains a comparatively small self-defense force. In particular, huge sums are annually being spent in Taiwan, Indonesia, Thailand, Vietnam, and Korea for military purposes, while the schools face severe financial difficulties.

Other factors such as religious diversities, land reform, and politics, should be included as factors obstructing educational development. However, from this brief account of several of the more formidable problems retarding the growth and advancement of education in Asia, it can be said that any educational progress made in this part of the world is remarkable in face of the overwhelming forces retarding it.

In spite of the obstacles educational progress is being made in most countries which can be recognized by some of the emerging patterns in Asian education. One of the significant patterns in the majority of countries since independence has been an increase in the importance of the schools. Education has become an instrument of nationalism and a concern of the state, which has inevitably brought about increased demands on the schools by the governments. As a result of governmental pressures, compulsory education is either being initiated or extended in every Far Eastern country; a gradual trend toward the comprehensive school is being promulgated, eliminating the two- or three-track system; a single national language is being promoted; the upgrading of teacher training is evident in a few countries; and higher education is being expanded. Unfortunately the academic standards maintained for the few during the colonial period have been substantially lowered as the student population swells, particularly at the university level.

As one travels throughout the Orient you can feel this slumbering giant beginning to stir. Nationalism is the motivating force and the schools are one manifestation. Compulsory education at the early grade levels should reach a significant proportion of all Asian children within the next 10 to 20 years. India, for example, plans to provide 20 million school places in the first five grades during its third Five Year Plan so that the number of children attending primary schools would be about 11% of the total population by 1965. Korea, Malaya, Philippines, and Thailand

have already introduced compulsory education of four or more years[1] while Japan has effected compulsory education of nine years since 1947.

The report of the Karachi Conference on Primary and Compulsory Education in Asia sponsored by UNESCO in 1960 stated that legislation for compulsory education in 15 Asian countries, excluding Japan and Red China, has increased student enrollment from 38.7 million in 1950 to about 66.2 million in 1960. This Conference planned a 20-year program for the provision of universal and free primary education of seven years in these 15 countries. By 1980 it would be necessary to accommodate 237 million children to reach their goal. The total cost for the program during the 20-year period was carefully estimated at over 56 billion dollars.[2]

In April of 1962 a follow-up UNESCO conference of 18 Asian ministers of education was convened in Japan to consider the progress of the implementation of the Karachi Plan. The final report recognized that the goal set in Karachi could not be met by all nations. Nevertheless the reports of implementation gave ample evidence that most nations had made a conspicuous beginning in extending compulsory education.

Based on the Karachi report, the crisis in Asian education has not yet begun. The impact of the plan will be felt in the next 10 to 20 years as this mass of humanity tastes the advantages of education through the extension of compulsory education. It is in this context that more Asian educational leaders are showing an increased interest in educational media developments.

The progress of education in Asia will depend to a great extent on the methods of teaching employed. For centuries,

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[1] The Needs of Asia in Primary Education, Educational Studies and Documents, No. 41, UNESCO, 1960.

[2] Ibid.

as education was available only for the elite, the most formal methods were successful in producing a small, articulate, well-read gentry class. As the masses are slowly and inexorably entering the classrooms, the ancient and traditional teaching methods still prevail. Where once there were ten students from upper income families in the class, now there may be as high as 60 students representing all income levels. Can the same teaching methods be used in both classrooms?

This question has stimulated an interest in the new educational media by a certain number of educational leaders in nearly every Asian country. It is worthy of noting that in the 1962 Tokyo meeting of 18 Asian Ministers of Education, a significant amount of time was devoted to the discussion of the use of the newer educational media. In particular, the final report calls for greater use of radio, films, television, and programmed instruction materials.[3] This was the first major conference in which the leading educational officials of Asian countries indicated more than a passing interest in educational media for improving their schools.

Prompted by American education specialists who serve as liaison officers for American aid, national audio-visual programs have been initiated in more than half of the Asian nations. The typical pattern is for the local American aid educational officials to meet with Ministry of Education representatives to plan a national audio-visual program Several people related to this field are then selected to spend one year or more at an American university studying the various phases of audio-visual education. These people return to their country to begin the local program, followed by several more 'participants' being sent abroad. In the meantime, under a contract with an American university, one or more American specialists are sent to the Asian country to advise the local program.

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[3] Meeting of Ministers of Education of Asian Member States, Final Report, UNESCO, Tokyo, April 1962.

After training the initial specialists, the next step is to provide facilities and equipment. Under an agreement between the Ministry of Education and the American program, facilities are established to initiate the service. In various degrees and under various circumstances, sometimes with UNESCO or the Colombo Plan as a third partner, this has been the origin of most of the audio-visual programs in Asian countries. The notable exceptions are Japan which has a separate but distinct situation, and Indonesia which accepts limited American aid from its 'neutralist' position, and has set up its program mainly under UNESCO and the Colombo Plan.

As a consequence there are currently some well-qualified and highly trained media specialists in Asia with some of the finest facilities and equipment. But the whole program must be viewed in perspective. They are all new programs and therefore are still very much at the level at which they began--the Ministry level. The new leaders are nearly all at the higher administrative levels endeavoring to work down to the school level. The tremendous task they face is to transmit their message to the classroom teacher. It will take years before their influence will be felt at the local level because of the many factors retarding Asian education in general, as mentioned previously.

A rather recent trend has become evident in the increased interest in mass educational media, particularly television. There is a new recognition of the possibilities of overcoming the dearth of qualified teachers through the use of instructional television. The fact that a national system of educational television could be a unifying force cannot be ruled out as a contributing factor in the new interest in television. It appears now that many Asian countries will have instructional television long before they have any successful program of film, slides, and filmstrips for schools.

Concerning educational media research in Asia, there has been very little accomplished outside of Japan which is indicative of the general situation. The media programs are too new to allow time for research programs to become established. Up to now there has been little justification for the time, effort, and expense required for research to be taken away from the fundamental task of establishing the basic program. Most Asian media specialists have accepted the voluminous amount of American research results as the basis for their activity, and have had little opportunity or support to undertake research into the effects which their particular culture and environment may have on media utilization.

As a result of the Tokyo UNESCO meeting more attention may be focused on educational media research. The final report stated that "...It was felt that the field of teaching techniques and materials called for assisted programs of research and experimentation at the national level as well as a cooperative program of exchange of information, facilities, and experience at the regional level..."[4] This, too, is probably the first meeting where chief education officials called for concerted educational media research. It may be a harbinger.

To sum up the developments of educational media in Asia, the following generalizations can be made.

> National audio-visual programs have been established in most Asian countries.
>
> The programs have been greatly influenced and supported by American education and American aid programs.
>
> The new programs are at the higher administrative levels and have not yet had an opportunity to influence local education.
>
> Japan is an exception with an advanced national educational media program.

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[4] Ibid.

Educational media research and experimentation is sporadic outside of Japan which, however, is carrying on a significant program of research and experimentation.

II. EDUCATIONAL MEDIA IN THE FAR EAST AND SOUTH PACIFIC

AUSTRALIA

EDUCATIONAL STATISTICS

National Population	**10,550,000**
Racial Group	
Australian	**10,508,000**
Aboriginal	**42,000**
National Language	**English**
Compulsory Education	**Eight Years**
School Population	
Elementary (Grades 1-6)	**1,564,187**
Secondary (Grades 7-12)	**555,345**
Higher Education	**90,000**
Total	**2,209,532**

Teacher Certification (Variations from state to state)

Elementary

Generally, completion of two-year college course.

Secondary

Generally, university degree followed by one-year postgraduate course in Education.

EDUCATIONAL MEDIA

H. O. Howard

Education in Australia is decentralized at the national level and centralized at the state level. As a result the progress of educational media varies somewhat from state to state. However, a significant characteristic of the media in Australia is the emphasis on mass media for education. With a relatively small population and a large land mass, radio in particular is playing an important role in Australian education.

Generally speaking, the State Departments of Education provide only the essentials for schools. Additional items such as projectors, radios, and television sets are left as a responsibility of school councils, parents' and citizens' associations. These bodies raise funds locally. However, when purchases are effected, the State Department concerned subsidizes the purchase and, after purchase, the Department maintains the equipment.

Each state's education department has set up its own system of providing a source of teaching materials and services. In general a state center maintains a library of films, filmstrips, and slides for circulation throughout the statewide area. Some centers produce films and all states have established a section for filmstrip production for its

---

H. O. Howard is Wing Commander of the Royal Australian Air Force and Chief of its Melbourne Visual Education Section, one of the best equipped departments in the country. Mr. Howard has been responsible for introducing the Harvey White physics films and the TEMAC mathematics programmed instruction materials into Australia, and has been instrumental in educational media developments in his country. He was a former high school teacher of science.

own curricular needs. With this system of supply and circulation, a national system of educational radio, and a growing educational television program, the increased use of educational media in Australia's schools has been significant.

Educational Radio

For many years radio has been regarded as an essential and normal piece of school equipment. This is particularly so at the elementary level where the figures show that for all practical purposes the saturation point has been reached.

Radio for schools always has been and still is an exclusive service of the Australian Broadcasting Commission. Educational policy in school broadcasts is directed by ABC headquarters in consultation with the state directors of education as a body in conference. Under this flexible arrangement, school broadcasts are given to both government and nongovernment schools.

ABC is involved in a number of transmissions including the Kindergarten of the Air, Migrant Education, Adult Education, English for Overseas Listeners, Australian Music Examination Board, and School Broadcasts. The Kindergarten of the Air has been presented for many years. The Migrant Education program is designed to accelerate the learning of English by migrants who have arrived since the war and cannot speak English. Their children must learn English in the schools but the parents do not have this opportunity; thus, educational radio provides this service.

A complex timetable of School Broadcasts is transmitted by ABC. Generally the audience represents a small percentage of the total number of children in secondary schools, but up to 80% of the primary classes have made use of these broadcasts appropriate to their grade. It is worthy of note that secondary school teachers are taking a keener interest in broadcasts with the tape recorder providing them with a means of overcoming timetable difficulties. With few exceptions the programs are of the enrichment type. This policy is in line with the tradition of the British Broadcasting Corporation.

Undoubtedly one of the most unique uses of radio for educational purposes is the School of the Air, a development associated with the famous Royal Flying Doctor Service of Australia. A description is given in the Case Study report of Section IV.

Educational Television

The Australian Broadcasting Commission is charged with the responsibility of using its television facilities for educational purposes, which is now in the early stages of development. ABC has conducted a series of experimental telecasts to schools during which a number of surveys were conducted to determine reception capabilities and general reaction. In 1962 expanded programming for classroom use went into effect. At the present time school television broadcasts are limited to the major cities and will in general be restricted to metropolitan schools for some years to come.

ABC has conducted a series, "University of the Air," designed to meet the needs of adult education. So far no results of the trial have been published. The commission has also entered the field of rural education. As the network spreads farther into country areas, this series could make a significant contribution to adult education.

With the planned system of national educational television coverage by the ABC, closed-circuit television has not received much interest. As far as is known only several schools have purchased closed-circuit television equipment on a trial basis.

Educational Film

Most schools have one 16mm sound projector. A few have more than one. There are 3, 233 16mm sound projectors in Australian schools. A short time ago it was estimated that less than 10% of the total number of educational films in use in Australian schools were produced in Australia. There has been a gradual increase in the local production of educational films.

In general public schools borrow films from the state education's film library. Private schools generally rely on the State Film Center's library. In some states the growth of departmental film libraries has become rapid. In at least one state the supply of films to schools is being expedited by the establishment of decentralized branch libraries. In several states it is now usual for a majority of schools to be able to borrow films at the required time. Teaching guides are often supplied with the films, a notable example being those issued by the Australian National Film Board for use with its series of films on socialstudies, which enable preparatory and follow-up teaching to increase the film's effectiveness. A rapidly growing practice is the issuing of supplementary filmstrips which reproduce certain frames of the film to use as 'stills' for more detailed study.

Almost without exception the films available are of the enrichment type. So far as is known, the only films in Australia which are designed to teach a course are the EBF Harvey White physics films being used by the Royal Australian Air Force and the Royal Australian Navy. The defense services make use of many films specifically designed as primary teaching tools.

Research

There has been extensive research conducted in the field of education, but only a fraction of the total effort has been devoted to the newer educational media. Emphasis has been placed on research and development in educational measurements. The general belief is held that a thorough comprehension of, and ability to apply, accurate tests is a prerequisite to all educational research. The Australian Council for Educational Research has done commendable work in this area.

A number of existing bodies have the capacity to design and organize media research, and some accomplishments have already been made. The Audio-Visual Aids Department of the University of Melbourne is undertaking significant studies into the psychological effects of the 'Western' film and crime drama over television. The Department has the equipment, personnel, and experience required to design and organize educational media research. Each state has educational research facilities and a few of them have completed media research.

Plans for educational media research in Australia are progressing. For example, the Queensland Department of Education, in cooperation with the University of Queensland and the Australian Broadcasting Commission, is at present carrying out an investigation into the use of television in schools. The Australian Council for Educational Research intends to study the value of overseas programmed instruction materials for use in Australian schools. Several other research programs to study the effects of instructional television are also being considered.

The two major obstacles to media research are finance and teacher attitude. Provision of finance for research and development in this field is almost nonexistent. The Audio-Visual Aids Department of the University of Melbourne is able to devote some funds for this purpose. However, the State Education Departments earmark small allowances for research. Teacher attitude is also an important factor. The disinterest in the media can be attributed to a lack of training, difficulty in use, and the pressure of examinations.

The obstacles to research are indeed formidable. However, with the improving systems of supply and circulation of teaching materials, an established tradition of school radio, an expanding educational television program, valuable experience in educational research with several experiments involving media, and a general well-developed national education system, the educational media research potential in Australia is significant.

FEDERATION OF MALAYA

EDUCATIONAL STATISTICS

National Population	6, 278, 758
Racial Groups	
Malaysian	3, 125, 474
Chinese	2, 333, 756
Indian	696, 186
Others	123, 342
National Language (spoken by 80%--compulsory subject)	Malay
Other Languages	
(spoken by 90% of Chinese population)	Chinese
(spoken by 70% of Indian population)	Tamil
Compulsory Education	None
School Population	
Primary (Grades 1-6)	1, 135, 592
Lower Secondary (Grades 7-9)	134, 589
Upper Secondary (Grades 10-11)	38, 387
University of Malaya	1, 010
Total	1, 309, 578

Teacher Certification
- Primary
  - Class D--School Certificate or Lower Certificate of Education and two years' full-time training.
- Lower Secondary and Primary
  - Class C--Higher School Certificate or School Certificate and two years' full-time training in Teacher Training College.
- Upper Secondary
  - Class B--Pass degree of a university and Diploma in Education.
- Upper Secondary and Higher School
  - Class A--Honours degree of a university and Diploma in Education.

EDUCATIONAL MEDIA

Victor Jesudoss

Visual aids were first organized throughout the Federation in 1950 by the establishment of a Federal Visual Aids Committee consisting of representative teachers from the 11 states and officials from the government. The main purpose of this Committee was to act as an advisory body to schools and to produce low-cost visual aids for the use of our schools.

In 1956 the Committee was reorganized with the appointment of a full-time Secretary for Audio-Visual Aids in the Ministry of Education and renamed the Federal Audio-Visual Aids Committee of the Ministry of Education. Members of this Committee were drawn from all states in the Federation and from teacher training, technical and vocation education, inspectorate of schools, and the Information Services. The general functions of the Federal Audio-Visual Aids Committee are to:

Victor Jesudoss is Secretary for Audio-Visual Aids in the Ministry of Education of the Federation of Malaya. He was the first full-time officer in Audio-Visual Aids to be appointed in the Ministry. Mr. Jesudoss is a trained secondary school teacher with more than 15 years' teaching experience. He was Head of the Audio-Visual Section of the United States Information Service in Kuala Lumpur for two years from 1952-54. In 1960 Mr. Jesudoss was sent by his government to the United States and Britain for specialized training in the field of audio-visual education. He has been mainly responsible for the organization of the audio-visual services in the educational system of Malaya and for the new progressive schemes envisaged by his government in this field for the advancement of education in Malaya.

examine the needs and requirements of states with regard to material, equipment, and training;

encourage the formation of state and regional audio-visual committees to work with the schools;

produce materials for which there is a common need throughout the Federation;

acquire and distribute audio-visual materials from producers;

provide other services and facilities and to coordinate the work of state committees;

work with the Department of Broadcasting in regard to the preparation of radio programs for schools.

The Federal Audio-Visual Aids Committee meets once a year at which time the problems and needs of the various states are discussed. Each state is represented by one delegate, usually the chairman of the state committee. These federal meetings provide an opportunity for the various states to exchange views and discuss problems at the national level. The Chairman of the Federal Committee is the Director of Teacher Training in the Ministry of Education, and the full-time officer with executive authority is the Secretary for Audio-Visual Aids in the Ministry of Education.

State Audio-Visual Aids Committees

State Audio-Visual Aids Committees have been formed in the 11 states of the Federation under the guidance of the Chief Education Officer of each state. Members of the Committees are drawn from teachers in primary and secondary schools and training colleges. Every state Audio-Visual Aids Committee runs a central library located either in the state education office or at a secondary or primary school. Some states have a full-time Audio-Visual Aids Officer, who is a trained teacher, attached to the local education office. In the State Audio-Visual Aids Library are deposited copies of all the filmstrips and other materials produced by the Ministry of Education, and filmstrips, wall charts, pictures, slides, etc., purchased from overseas producers. Some states also have 16mm films, recorded tapes, and long-playing records in their library. The equipment available at a State Audio-Visual Aids Library includes the 35mm filmstrip/slide projector, the 16mm film projector, the tape recorder and, in the larger states, record-playing equipment. A great percentage of Malaya's 5,000 schools cannot afford to own projection equipment.

A new plan calls for regional centres within the states to serve a number of schools. The regional centres will be equipped as fully as possible with equipment and materials and will be the place to which teachers will turn for advice and assistance in media techniques. The regional centre will be part of a school and will be under the supervision of the head of that school. It will also act as a distributing centre and clearing house for material sent to it from the state centre. A minimum of 45 audio-visual regional centres are being set up in 1962. It is intended that year by year the number of centres will increase, thus bringing within close reach of schools the facilities and potentialities of the educational media.

Teacher Education

Great importance is attached to the training phase of the audio-visual program and facilities are being continually extended for the training of teachers in this field. At the national level there is a Specialist Teacher Training Institute in Kuala Lumpur in which a Department of Visual Aids has been established. A full-time lecturer in Visual Aids lectures to teachers of specialized subjects such as physical education, domestic science, art and crafts, etc., and demonstrates the use of visual aids and equipment in the respective subjects.

At the state level in-service courses in audio-visual education are conducted by teachers who have been trained at the Specialist Institute or who have had specialized training abroad. The in-service courses are organized by state committees and are very popular with teachers. There are at present 1, 415 teachers who can operate audio-visual equipment out of a total teacher population of 48, 000.

For 1962 countrywide in-service courses are planned for teachers in all states. The courses will be conducted in three progressive stages over the one-year period and will be held during weekends or vacation periods at various centres. Instructors for these courses will be drawn from those who have received specialist training at Malaya's own Specialist Teacher Training Institute, or from those who have been trained abroad. During the first year about 400 teachers will complete all three stages but the number of courses will be increased each year so that a good proportion of Malaya's 48, 000 teachers will have received some specialist training over a period of years.

Malaya has been fortunate in being able to benefit from the grants offered by the United States Government for six-month audio-visual courses in the United States. Six of our teachers have so far been trained under this scheme and are assisting our state committees in their work. During 1961-62 UNESCO offered two fellowships for training in audio-visual education. These opportunities have stimulated an interest in the educational media in our schools.

Educational Radio

School broadcasts have been produced for the benefit of schools for the past several years. There are now 1, 335 schools in the Federation of Malaya which own radio receivers and listen to these broadcasts. From the beginning, broadcasts to schools have originated from Radio Singapore since it has had a separate School Broadcasting Service within Radio Singapore for many years. It is intended to establish a Schools' Service within Radio Malaya for the benefit of the schools of Malaya. In the meantime the Federation of Malaya schools continue to receive broadcasts from Singapore.

In order to coordinate the over-all policy and advise the two governments on all matters concerning school broadcasting, a Joint Committee for Broadcasts to schools for the Governments of the Federation of Malaya and Singapore has been established comprised of broadcasting and education officials from the two territories. There have also been established two Joint Working Committees, one for School Broadcast programmes and the other for Listener Research.

Radio Singapore broadcasts three morning and two afternoon programmes of English school broadcasts each day, four days a week. The standards covered are from Standard I, the lowest form in the primary school, to Form VI, the highest form in the secondary school. Broadcast periods last from about 20 to 30 minutes. Advance notes are sent to teachers regarding the content of each broadcast with suggested follow-up questions and exercises. It is the general desire of the schools and of the government that school broadcasts for Federation schools must originate from our own studios in Radio Malaya. It is in this direction that future planning will be made.

Educational Television

Television has not yet been introduced into Malaya but the government is actively considering the commencement of broadcast television in the very near future. A great part of the programming will, of course, be of an educational nature. School television, as such, has not come into being but at the present time the possibility of using closed circuit television for instructional purposes in colleges and training schools is being considered. The biggest handicap to the introduction of television is the cost involved and the recurrent expenditure for the production and relay of good programmes.

Educational Film

The 16mm film has become one of the most sought-after educational media in many of the schools and colleges which can afford to buy the equipment. Teachers are given training in the operation of projectors, in the handling of film, and in the correct application of this media. State Audio-Visual Aids Centres are provided with projectors by the Ministry, whereas schools have to buy their own.

There is no 16mm film production in the Ministry of Education. Whatever 16mm films are used by schools are borrowed from the film libraries of the United States Information Service, the British Council, and other information units including, of course, the Federation of Malaya's own film library located at the Information Services. There are 119 16mm sound projectors in the schools of Malaya, all of them owned by the schools. Three of the 11 State Audio-Visual Aids libraries have 16mm educational films to loan to schools.

Educational Filmstrips and Slides

As indicated earlier, about 10 years ago there were no educational slides or filmstrips on Malayan subjects available in Malaya for teaching purposes. All such material was imported from foreign countries and did not possess the local theme or setting. In 1950 the Ministry of Education through the Federal Visual Aids Committee, and later in 1956 through the Federal Audio-Visual Aids Committee, produced 35mm filmstrips for use in schools. Topics selected were all Malayan in character and were usually tied in with the curriculum content of schools. Some 21 filmstrip titles have been completed and distributed for use in schools.

Research

There has been no educational media research conducted in Malaya. Several conditions have restricted research activity. First of all, there is a lack of trained personnel. The few who are capable of conducting research must devote their time and efforts to establishing the basic program. Secondly, there are few available facilities. Finally, insufficient funds rule out research activity. With the vast development and expansion that is at present taking place in the educational system of Malaya, projects such as teacher training, technical education, free primary education, and new rural schools compete for priority in the claim for funds. Educational media services and research will therefore have to take their place in the long queue.

Future Plans

The trend is toward the establishment of a National Institute or Federal Audio-Visual Aids Centre with separate departments for production, distribution, training, maintenance, administration, and research and experimentation. This national centre will also include a library of films, filmstrips, slides, tapes, and reference books. It will be the nation's hub of audio-visual activity and will not only produce pictorial aids but will also publish bulletins and informative handbooks and catalogues for the use of teachers. The national centre will be able to cooperate with other informational units to include assistance to further education classes, technical training, and in other professional fields. Such a centre is envisaged in the years ahead, and any assistance that could be provided for the training of personnel or the supply of equipment and material would be welcome.

EDUCATIONAL MEDIA

G. K. Athalye

The progress of educational media in India is currently going through a rather critical transitional period. On the one hand school radio broadcasting has taken deep roots in the system and educational television is undergoing a trial period. At the same time, however, there are too many rural schools that do not possess one decent chalk board. Since it is impossible to make available educational media such as films, tapes, etc., to all schools, our attention is focused on providing the traditional simple tools of teaching to all teachers, while moving ahead with the more advanced media for schools capable of utilizing them.

The Government of India has recognized the tremendous need for educational media to improve the efficiency of our school system. As early as 1911 the Government made the first grant of 3, 500 Rupees for 'visual education', marking the beginning of this movement. This modest inauguration has been followed with continuously larger grants.

One of the most recent conspicuous developments in the media field in India is the National Institute of Audio-Visual Education established in New Delhi in 1959. The main

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G. K. Athalye has been the Director of the National Institute of Audio-Visual Education in New Delhi since its foundation in 1959. Previously he served as the UNESCO Expert in Audio-Visual Education with the Government of Thailand from 1956 to 1959 and was the Officer in Charge of Audio-Visual Education in Bombay State from 1947 to 1956. Mr. Athalye is a former teacher of mathematics and science.

responsibility of formulating the policy on an all-India basis rests with this Institute. The Ministry of Education delegated the following activities to the Institute:

> Leadership--to give audio-visual education leadership on an all-India basis and at state and local levels.
>
> Teacher Education--to provide audio-visual education training for staff members of teacher education institutions and other agencies; to offer specialized short courses; to develop demonstration centres for materials, equipment, and methods.
>
> Research--to discover on the basis of research what materials may be needed and how, when, and where to use them effectively.
>
> Production--to prepare prototype teaching materials especially usable for village schools; to mass produce certain items such as filmstrips and nonprojected materials.
>
> Film Library-- to distribute educational films.

In addition to these activities, the National Institute of Audio-Visual Education is responsible for implementing the recommendations of the National Board of Audio-Visual Education which was established in 1953 and has been functioning continuously. The National Board of Audio-Visual Education consists of members drawn from various fields of education who make recommendations for improving audio-visual education in India.

A major task of the Institute is the offering of courses for educational leaders from all the states. The National Institute has so far conducted short-term training courses of 10 weeks' duration to train lecturers of secondary teachers' training colleges, inspecting officers of the states,· and personnel of Ministries of Health, Defense, Community Development., etc., in the use and presentation of audio-visual materials of all types. Two more courses of six weeks' duration were also organized for the Coordinators of the Extension Service Centres attached to 54 secondary teachers' training colleges located at various places in India. Since it is impossible to impart training to all teachers in India at the Centre, Lecturers and the Coodinators of Extension Service Centres who received training at the National Institute of Audio-Visual Education are expected to conduct training courses on their own after their return to their native states. It is thus expected that within the course of the next five years it will be possible to train many teachers in the preparation of low-cost instructional aids and the use of various types of audio-visual materials.

The training imparted at the National Institute of Audio-Visual Education is complete in all details and includes not only the use of mechanical teaching aids such as the projector, tape recorder, filmstrip projector, etc., but also the preparation and use of nonprojected aids such as charts, maps, dioramas, models, etc. It should be mentioned in this connection that for a country the size of India, with the limited funds that can be made available through governmental channels, it has not been possible to extend the use of costly equipment such as the 16mm sound projector and magnetic tape recorder, and therefore stress is laid on the preparation and use of nonprojected materials.

The Central Film Library of the National Institute of Audio-Visual Education contains 5, 000 films with about 2, 000 titles on various educational subjects. The films are loaned to 1, 500 educational institutions in all of India's 15 states. Films and filmstrips of this library are supplied free of charge.

The Institute publishes a quarterly journal entitled "Audio-Visual Education" which includes articles of interest to teachers in both English and Hindi. In every issue special articles on 'how to do it yourself' are carried which teachers find useful in preparing their own instructional tools with locally available materials. It is proposed to include additional features to make it more useful even to other countries.

In an endeavor to influence state and local education, State Departments of Education have recently been asked to establish their own Advisory Boards of Audio-Visual Education to look after the basic requirements of their own states. At present 11 states have set up their own Advisory Boards who are working in close cooperation with the centrally administered Audio-Visual Education organizations.

Educational Radio

Educational radio broadcasting in India was inaugurated in November 1937 from the Calcutta Station of the All India Radio. Today, educational programs in thirteen principal languages of India are being broadcast from the following stations: Vijayawada, Calcutta, Poona, Patna, Bombay, Jaipur, Madras, Anmedabad, Lucknow, Hyderabad, Nagpur, Bangalore, Delhi, Jullundur, Cuttuch, Indore, Ranchi, Gauhati, Allahabad, Mysore, Trivandrum, Simla, and Rajkot. The programs average 30 minutes each and vary in frequency from three to six days each week.

Production of educational broadcasts in India is the responsibility of the All India Radio, a subordinate organization of the Central Ministry of Information and Broadcasting. Determining policy requires coordination between the All India Radio and the Ministry of Education. In fact, much of what has been achieved during the postindependence period in the area of educational broadcasting was to a large extent inspired by the National Board of Audio-Visual Education which was set up by the Ministry of Education to advise them on the development of audio-visual education.

At the actual planning and production stage, the educator is all the more intimately connected with educational broadcasting. Consultative panels have been set up by almost all stations to work out broadcasting schedules for the year. These panels include teachers, educators, audio-visual education officers in the states, and administrators from the State Education Departments. The broadcasts are planned by them in relation to the syllabi for schools in the respective regions. In the production studios of the All India Radio, the educational broadcasts are handled by teachers and educators who have been appointed at all broadcasting stations as educational supervisors and producers.

The educational broadcasts in India are being produced with three main aims in view: to supplement textbooks, to give the ill-equipped schools the benefit of the best available teachers, and to relate teaching as far as possible to real-life situations by producing realistic programs. All possible facilities are being provided to make educational broadcasts useful and effective. Workshops are organized for script writers of educational broadcasts and for classroom teachers so that they can use educational broadcasts in the classroom with maximum effectiveness. Special pictorial pamphlets to supplement the broadcasts are also produced and sent to enlisted schools well in advance for study and preparation before the actual listening. Follow-up activities are also suggested. Good broadcasts are again made available to schools by repeating 30% of the programs produced each year. This is a very useful feature because of the absence of tape-recording facilities in most schools. Schools are being encouraged further to buy radio sets through various central and state schemes. The Ministry of Education, for example, provides 50% of the cost of radio sets to schools under their general subsidy scheme. With this financial assistance and the availability of educational broadcasts, radio is making a valuable contribution to Indian education.

Educational Television

The All India Radio, which is a part of the Ministry of Information and Broadcasting, has undertaken since October 1961 the telecasting of educational programs for which

UNESCO and the Ford Foundation have extended assistance. During 1961-62, 275 television sets were installed in 152 schools in the New Delhi area. At the ninth-grade level two programs in physics, two in chemistry, one in English, and one in Hindi are telecast each week for classroom use. At the tenth-grade level one weekly program each in physics, chemistry, English, and Hindi is available. In addition to these school broadcasts, a weekly program is arranged for adult education classes. It has not been possible so far to complete the report regarding the evaluation.

Unfortunately it is not possible at this time to extend the television facilities to other parts of India outside of Delhi. The vast expenditure involved in extending these facilities on a countrywide basis would need careful assessment in the beginning. Such expansion would necessitate the installation of relay stations all over the country to adequately cover the large area involved, and the Government may not be able to bear such a large expenditure for some time to come. The conditions obtainable here for the large-scale use of television are far more unfavourable than in countries such as Japan and America. Unless and until ways and means are devised to make television broadcasts less costly, there are no prospects in the near future for the wide-scale use of television in Indian education.

The possibility of using artificial satellites put into orbit as relays for television broadcast has been made public. If experiments in that direction prove to be successful, perhaps large countries such as India would be in a position to use television for educational purposes on a larger scale than envisaged at present.

Educational Film

Since the preponderance of instructional films in India are produced abroad, their value for Indian schools were questioned. As a result it was found that many of the films did not prove sufficiently effective for Indian classrooms because of the language and treatment of subjects unsuited to Indian conditions. To overcome this difficulty steps were taken for translating and dubbing foreign films of unquestionable value into Indian languages, producing educational films in cooperation with the Ministry of Information and Broadcasting, and providing educational advice to private film companies. These measures resulted in some increase in the use of films.

The major source of educational film supply is the National Institute of Audio-Visual Education with its film library of 5,000 titles. It also undertakes to produce half a dozen films every year for the Ministry of Education which are generally for classroom teaching purposes in relation to the school course of study. So far the Film Division has produced 32 films for the Ministry of Education. However the general lack of projectors, the vast distances involved, and the requirement of electricity restrict the use of films primarily to the urban areas.

The recent developments in 8mm sound film have stimulated renewed interest in the educational film. With the greatly reduced costs and the possibility of battery operated projectors, some Indian educators believe that the 8mm film will revolutionize the whole concept of education through film which has at present become the privilege of the few.

Research

Media research has not had the support necessary to undertake the needed activity. It appears that we are now about to begin some valuable projects in this direction. For example, the current evaluation of the Delhi television project, although not yet available, should make a significant contribution to media research; the National Council of Educational Research and Technique, established in October of 1961, is planning extensive research which will probably include educational media; and intensive experimental research is under consideration by the National Institute of Audio-Visual Education to determine what types of mechanical teaching materials could be made available to all educational instruction, including those in the remote areas. This indicates the possible media research in India.

INDONESIA

EDUCATIONAL STATISTICS

National Population	96 million
Racial Groups	
Indonesian	89 million
Chinese (partly naturalized)	6 million
Others	1 million
National Language--used daily by 20% (taught in all schools)	Indonesian
Other Languages	Nine
Compulsory Education (effective in 20% of Indonesia--attended by 65% in those areas)	Six Years
School Population	
Elementary	8, 955, 098
Secondary	399, 000
High School	136, 800
Higher Education	102, 000
Total	9, 592, 898

Teacher Education

Elementary
  Class C--Six-year High School diploma.
Lower Secondary Schools
  Class B--Completion two years college.
Upper Secondary Schools
  Class A--Four-year college degree.

EDUCATIONAL MEDIA

F. Situmorang

The educational achievements made during the last 20 years in Indonesia are worth noting. Literacy has increased from 10% prior to the war to 55% at the present time; and schools have increased 225%, students 300%, and teachers 500%. In spite of these advancements, our past is always with us. The pattern of education through the centuries from the Dutch colonial period until Indonesia became a free and independent country after the war has left its mark. Its influence is still being felt in our schools. The imprint is not upon the masses but upon those who received their education in the Dutch tradition. Teaching as they were taught, they impress it upon their students, many of whom are also preparing to teach.

Much of the Dutch instruction was competent and thorough, but rigid and didactic, and gave little opportunity for developing individualism. The student was not permitted to challenge, to participate, to develop individual initiative. His was to accept, to memorize, to recite. The shadow of this philosophy still falls over our classrooms.

We are endeavoring to reform our educational system. Since 1950 the Ministry of Education has been conducting many conferences to plan ways and means for the foundation and development of an effective national program of education. In 1954 the Ministry established the National Science

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F. Situmorang is the Director of the National Teaching Aids Center in Bandung. In this capacity he has been the most active Indonesian in promoting the use of educational media throughout his country. Mr. Situmorang, a former teacher, has studied abroad and has represented his country at several international conferences.

Teaching Center and in 1956, the National Teaching Aids Center. The Teaching Aids Center was the first official recognition of the importance of modern teaching methods. It marks the beginning of a formal program to promote the use of educational media in Indonesia.

Because Indonesia is a vast country extending approximately 2,500 miles from one end to the other and consisting of 3,000 islands, the progress of audio-visual education varies from island to island. Progress has been slow and often disappointing. According to several national surveys made a few years ago, the following reasons were given as the main obstacles to the development of educational media in Indonesia:

> Audio-Visual methods are so new that the average teacher is either completely unaware of the newer techniques or feels no need for changing his methods of teaching. A ery small proportion of teachers has had any training in this area.
>
> The educational system places great emphasis on lecturing, memorization, and note-taking as a means of instruction.
>
> The industrial development is such that relatively few teaching materials are produced locally and imports are prohibitively expensive.
>
> Electricity is largely restricted to schools in the cities.
>
> There is no budget for teaching materials.

National Teaching Aids Center

In order to implement a national scheme of audio-visual education the Ministry of Education in 1955 requested assistance from UNESCO in planning a program. Accordingly, a UNESCO expert surveyed the situation and made recommendations. The decision was made to begin by establishing a training center for teachers and arranging programs with a number of schools as experimental projects for the study of problems in the introduction and use of teaching materials in the classrooms. Accordingly, in 1956 the organization of the Teaching Aids Center began with the Ministry of Education, UNESCO, and the Colombo Plan jointly providing the personnel, facilities, and equipment. At the present time the only national program in Indonesia for the promotion of educational media is the Teaching Aids Center's program.

The Teaching Aids Center has been greatly expanded since 1956. In the past six years UNESCO and the Australian and Canadian Colombo Plan organizations have provided foreign experts and have trained Indonesians for specialist positions. There are now 24 staff members of which seven have been trained in Canada, Australia, America, and India.

The main objectives of the Teaching Aids Center are to provide courses for teacher training, to carry out experimental research in relation to the development of audio-visual education in Indonesian schools, and to design and produce inexpensive materials for use throughout the nation. The following courses are presented by the Center: six-month to one-year courses for training specialists for provincial teaching aids centers, teacher training institutions, and other departments; six-week courses for selected teachers of elementary and secondary schools; two-week refresher courses for training headmasters and school supervisors; one-week extension courses; and four-day seminars and workshops.

Provincial Centers

The next major step under way is the establishment of 12 Provincial Teaching Aids Centers throughout the country. The objective is to promote educational media utilization on a regional basis since Indonesia is spread over a vast area. The primary responsibilities of the regional centers are to provide teacher training in the use of teaching materials, and coordinate audio-visual activities within their regions. Five of the regional centers are now in operation and are staffed with personnel trained at the National Teaching Aids Center in Bandung. This is a major effort to improve teaching methods in Indonesian Schools.

Educational Film

No classroom films have been produced in Indonesia, nor are there many in the country from abroad. The major reason for this condition is the dearth of projectors which, in turn, can be attributed to the lack of electricity outside of the large cities. In 1962 two films on science and geography will be produced, as recommended by UNESCO, as the beginning of educational film production in Indonesia.

Radio and Television

There are a few radio sets and recording equipment in schools, but no school radio programs. The 22 radio stations broadcast general educational and cultural programs. Special broadcasts are presented during the late afternoon hours to reach teachers and students at home. Television has not been established in Indonesia.

Research

Educational media research has not been started in Indonesia. The national program has not reached a level where research is felt to be sufficiently necessary to allocate badly needed funds from other projects. Considering the lack of trained research people and funds, scarcity of equipment, the vastness of the country and lack of modern means of communication, the obstacles to media research are significant. Nevertheless, the Teaching Aids Center has established a research bureau to investigate local

conditions and circumstances retarding the progress of educational media in Indonesia. This is our major research concern at the present time.

JAPAN

EDUCATIONAL STATISTICS

National Population	94,280,000
Racial Group	Japanese
National Language (spoken by 100%)	Japanese
Compulsory Education (99.8%)	Nine Years
School Population	
Elementary (Grades 1-6)	11,810,871
Jr. High School (Grades 7-9)	6,924,693
Sr. High School (Grades 10-12)	3,118,896
Jr. College (two-year course)	91,245
College & University (four-year course)	644,022
Total	22,589,727

Teacher Certification

Elementary and Jr. High School	
Class A--Four-year college or Class B (30.7%) plus 5 years' experience.	203,722
Class B--Two-year college or (61.2%) Provisional Certificate plus 6 years' experience.	405,598
Provisional--High School Diploma. (8.1%)	55,480
Senior High School	
Class A--Masters Degree or Class B (36.6%) plus 3 years' experience.	45,463
Class B--Four-year college. (58.8%)	73,014
Provisional--Two-year college. (4.6%)	5,802

EDUCATIONAL MEDIA

Mitoji Nishimoto

When the Pacific War ended in 1945 a defeated Japan was in complete disorder and ruin. The educational system had come to a standstill with materials, equipment, and facilities suffering severe damage. For example, the number of radio sets, which reached 7.5 million homes throughout the country in 1944, was reduced to 5.7 million by March 1946 as a result of the fires caused by air-raids during the war as well as the shortage of materials and parts during the postwar confusion. Many of the schools

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Mitoji Nishimoto is Professor of Audio-Visual Education at the International Christian University, Tokyo, and Director of the Audio-Visual Center of the University. A graduate of Teachers College, Columbia University, Professor Nishimoto is well known in Japan for his translation of Dr. William Kilpatrick's works. He is, however, best known for his accomplishments in the field of educational radio-television which began in 1933 when he planned the first school radio broadcasting in Japan in the city of Osaka. Since that time he has been very active in Japanese educational radio-television, serving in various positions with NHK, the Japan Broadcasting Corporation. Currently he is an Advisor on the NHK Central Advisory Council on School Broadcasts. In 1959 Professor Nishimoto received the coveted Blue Medal awarded for outstanding contributions to educational broadcasting, presented by the Emperor. At the present time he holds the following positions: President, Japan Radio-Television Education Association; President, National Society for the Study of Radio-Television Education; President, National Council for the Study of Correspondence Education; Vice-President, International Council on Correspondence Education.

were burned to the ground destroying projectors, radio sets, and all other instructional materials. Even in the schools which survived the war, most of the equipment was in an unusable condition unworthy of repair.

The supply of textbooks also became critical. Soon after the beginning of the Occupation of the Allied Forces, all textbooks were strictly screened. A new tentative national course of study was published in 1946 eliminating from the school curriculum the teaching of the course of moral education, State Shintoism, veneration of the Emperor, ultranationalism, exaltation of the state over the individual, and militarism. Social studies combining morals, history, geography, and current events were introduced, requiring new books. Because of the shortage of paper, especially during the early stage of the Occupation, the children had a difficult time securing textbooks. Thus all educational media in Japan was in the worst possible condition during the first several years of the Occupation.

In October 1945 the Japan Broadcasting Corporation (NHK) was asked to resume school radio for teachers so that the teachers could be retrained in the democratic principles of education under the new government. A month later radio programs for the classroom began on a small scale. It required about three years to reach the prewar level of programs in number and quality. It took another three years for teachers to become active in using radio programs in their classrooms.

By adding school television in February 1953, Japanese school broadcasts have been greatly strengthened, especially since the 1958 inauguration by JBC of the second television channel devoted exclusively to educational programs. In the same year a commercial educational television station called the Nippon Educational Television Network initiated formal school television. In 1962 JBC is offering 65 school programs a week throughout the year on radio, and another 50 series of school programs a week on television, while NET telecasts 35 school television programs a week. Thus educational radio and television in Japan has reached one of the most advanced levels in the world today.

Contrary to educational radio and television, Japanese educational film has had a slow development. Because of the shortage of resources after the war in both capital and materials, the production of 16mm sound films was limited. Only a few schools could afford to buy a sound projector. Film libraries were not popular until around 1950 when the Occupation offices distributed 1,273 16mm sound projectors throughout the prefectures through the Ministry of Education on a loan basis, along with the distribution of United States Information Service films. For a short period the films were well received because of the lack of entertainment, especially in rural areas. They were mainly used for adult audiences, but the viewers gradually lost interest because the film content was not related to Japanese life. New films were added based on Japanese situations and were successful to some extent. But owing to the lack of funds and appropriate material, there were limitations to the fullest use of this educational medium.

The distribution of projectors and films by the Occupation forces made a great contribution to the revival of film education after the war. Starting as an adult education movement, a film library was established in each of 46 prefectures. However, the public school teachers became interested in them and have gradually utilized the films in the classroom because, in many cases, teachers in local communities are responsible for both school and adult education.

Encouraged by this development, Japanese film producers have become active in producing short 16mm films. The number of producers has grown from 14 in 1945 to 105 in 1953, and 199 in 1960. The number of titles produced was 84 in 1945, 372 in 1953, and 970 in 1960. Of these 970 titles, 542 (55%) are public relations films sponsored by various business concerns, while 428(45%) are educational films in a general sense for all age levels. Of the total number 137 (15%) are instructional films for classroom use. There are three major producers, each supplying more than 30 titles a year. Many other small-scale producers supply only one or two titles per year.

Experiencing the pressure of educational television on the one hand and that of 8mm educational film on the other, Japanese 16mm educational film production is now beginning to face a new crisis after the strenuous effort it made to survive the postwar turmoil. Eight millimeter motion picture film was primarily produced for home use until 1955. But the advantages of handy and inexpensive 8mm instructional films are now recognized by both teachers and producers. In addition, the recent inventions of an automatic 8mm movie projector and magnetic and optical 8mm sound projector make the future of this new media very encouraging in Japan. Several companies are now marketing inexpensive 8mm educational films.

As for instructional slides and filmstrips, the number of producers has grown from one dozen in 1946 to more than 100 in 1960. In 1962 Japanese schools are able to select among 5,000 sets of slides and filmstrips produced by 73 companies on many subjects. Moreover, photography is becoming popular among Japanese teachers, enriching school instruction by the use of many kinds of teacher-made slides and filmstrips.

Kamishibai, or paper theater, another inexpensive visual aid, deserves consideration. During the first seven or eight years after the war, kamishibai was very popular in kindergartens and lower-grade classrooms as well as on the street corner. However, with the growth of slides and filmstrips and especially television, the use of kamishibai has been declining. Nevertheless in kindergartens and church schools kamishibai will continue to have an important role in story-telling.

Field trips must also be mentioned as one of the conspicuous features of Japanese education. Japan is an old country with many historical areas related to Shintoism and Buddhism and many scenic attractions located throughout the country. It has been one of the traditions to visit these places as part of the educational activities since the Meiji Era, when a formal school system was established in 1872. But with the emphasis of direct experience and observation in the new education, especially in social studies, on the one hand, and the recent development of modern transportation, especially of large sight-seeing busses, on the other, field trips are becoming more popular year by year.

The tape recorder is one of the most remarkable developments which has had great influence on Japanese education after the war. A magnetic tape recorder was developed in 1940 by the joint effort of Professors Kenzo Nagai and Teiji Igarashi of Tohoku University in Sendai City. World War II, however, prevented its commercialization for several years. After the war Sony put out its first tape recorder, called "Tapecorder," in 1950. During the last 10 years the tape recording industry has made gigantic strides. In 1959, 232, 390 tape recorders were produced by nine major Japanese manufacturing companies. In 1961 the number jumped to 877, 000 which does not include another 600, 000 simple 'rim drive' tape recorders in the $10 range, mainly for export.

The tape recorder has been used in the teaching of music, language, social studies, and many other student activities. But the bright future of the tape recorder is in the development of the language laboratory. From an international point of view, the training of at least one additional language of an internationally recognized nature should be advocated for the younger generation in addition to the training of the native language. Since nearly every Japanese student studies English from the seventh grade on, the language laboratory providing the native voice is gaining momentum in Japanese secondary and university education. The recent production of the syncroreader, syncrophax, and magnetic sheets are also being coordinated with the language laboratory system.

The very latest development is the introduction of the teaching machine. In this new field America is the most advanced country in the world. American theories and practices have been rapidly introduced to Japan since 1960. The Japanese original teaching machines, such as the Syncrophax, Ricohphax, and the Gakken Memorizer, are pioneering this field in Japan.

An indication of the growth and importance of the newer educational media in Japanese education can be seen in the development of professional and academic organizations and the publication of journals. In 1962 there are five national audio-visual associations with two national monthly journals. These national organizations are primarily made up of teachers from the university, secondary, and elementary schools. Unlike other Asian countries, the Ministry of Education has a comparatively minor role in this movement. The pioneers and strength of the educational media movement in Japan consist of progressive teachers, university professors, and media specialists and producers.

Educational media in Japan has experienced a rapid growth during the last ten years following the end of the Occupation in 1952. Its influence on education is significant. However, it would be unfair not to mention the greatest obstacle to an even faster growth, which is tradition. Our tradition of Confucianism which places the teacher in an exalted position high above the student has implanted the teacher lecture system deeply into our system of education. In addition, the adoption of the Chinese system of pictograph writing has placed great emphasis on the written form of communication. Both of these historical events have made it extremely difficult to modify the traditional teaching methods in order that the newer educational media can be utilized. This is particularly true with the older teachers who received their preparation before the war. The postwar teachers are much more receptive to the newer methods of teaching and are the backbone of the growth of this philosophy.

We who are directly associated with educational media developments in Japan are proud of our accomplishments. At the same time we recognize our weaknesses. In particular, Japan has not yet implemented a nationwide program of training educational media specialists in its colleges and universities. However, each year more courses in this area are being added. As the demands for more and better education increase, we sincerely believe that our accomplishments to date have laid but the foundation for the advanced developments which will surely follow.

Teacher Education

In 1953 there were three colleges offering lectures and laboratory .work in audio-visual education with eight colleges offering only lectures, according to a survey by the Ministry of Education. Another 51 colleges reported that they included it in their educational psychology, teaching methods, and principles of education courses. Under these circumstances the first National Conference on Audio-Visual Education was held to determine what should be included in the audio-visual courses for in- and pre-service teacher training in 1954, sponsored by the Audio-Visual Center, International Christian University. Since then, this has been an annual topic of this conference.

The most recent survey conducted by the International Christian University, NHK Radio Television Cultural Research Institute, and the Japan Radio Television Education Association in 1961, found that there are 56 universities and teacher-training institutions offering one or more courses for credit on audio-visual education. Three colleges offer two credit lectures, seven colleges four credit lectures, sixteen colleges two credit lectures, exercises, and laboratories, and thirty colleges four credit lectures, exercises, and laboratories. The International Christian University is the only university in Japan which has an audio-visual department at the graduate level, conferring the Masters Degree of Audio-Visual Education. The department is now offering 12 courses for graduate students majoring in audio-visual education.

There are a number of reasons for the fact that comparatively few Japanese teachers have any formal course work in educational media utilization. One of the primary reasons is that, in a highly centralized system, the Ministry of Education has not promoted audio-visual course work as an integral part of teacher training. In all of the 46 teacher-training institutions, the courses in this area are optional and not required for the teacher's certificate. With the heavy load of required courses, relatively few students can spare the credits for such an elective course from their major field of study.

Another vital obstacle is the lack of teachers for audio-visual courses, since there is a dearth of institutions preparing specialists. A number of Japanese have gone to America for advanced study which is not yet available in Japan. A significant movement has been started by leaders in this field to establish standards for audio-visual courses and course content recommendations. In addition, the recent spurt of demands by students for mass communication study indicates that the trend is definitely for increasing and improving educational media training in Japanese teacher-education institutions. It will, however, take many more years before it becomes recognized as an important part of teacher preparation.

The Role of the Ministry of Education

Before the establishment of the Department of Audio-Visual Education in the Ministry of Education, there was a subcommittee for the evaluation of educational films. In August of 1952 a Department of Audio-Visual Education was established in the Bureau of Social (Adult) Education to promote audio-visual activities in both school and social education on a national level. The Department has been gradually assuming a more important role on the national scene. In 1960 the Department provided 300 television sets to schools in remote areas and 400 sets in 1961. In 1961 it published "A Handbook for the Utilization of Audio-Visual Materials in School and Adult Education" and conducted a number of researches and surveys. Budget assistance to national teacher-training institutions for audio-visual equipment was provided. The Department has no responsibility for the public NHK radio and television network which is supported by levied fees and operates independently of the government.

The budget of the Department of Audio-Visual Education for 1960 was ¥85, 245, 000 (U.S. $237, 000). The 1962 budget is ¥146, 827, 000 (U.S. $408, 000) for the following items:

Educational Broadcasts Committee	¥ 192,000	$ 530
Evaluation of Educational Films	2,340,000	6,500
Promotion of Educational Radio	6,566,000	18,240
Promotion of Educational TV	40,267,000	111,850
Subsidy for Commercial Educational TV Programs	38,209,000	106,140
Promotion of Educational Film	4,600,000	12,780
Distribution of Educational Films and Tape Recordings	23,367,000	64,900
Conferences, In-service Training	548,000	1,520
Research	2,058,000	5,720
Special Budget--		
50% Subsidy for TV sets for Rural Schools & Public Halls	12,000,000	33,330
Broadcasts for Promotion of Part-time & Correspondence High School	16,686,000	46,350
Totals	¥146,833,000	$407,860

Educational Radio

The Japanese radio and television system is somewhat similar to that of Canada which includes both public and private enterprises. The Japan Broadcasting Corporation, the public broadcasting system called NHK, is supported by a ¥50 (U.S. 14 cents) monthly fee per radio set, and ¥330 (U.S. 92 cents) per television set. There is no advertisement over these national networks.

NHK radio operates two national networks. The first is comprehensive including news, entertainment, and education, carried over a network of 140 stations including 8 key stations, 91 substations, and 41 relay stations. These programs reach 97% of Japanese homes. Sixty-two per cent of its broadcast time is devoted to cultural and educational programs primarily at the adult level.

The second network is more educational, which includes school programs in the daytime and adult educational programs early in the morning and at night. NHK school radio programs include 83 series of weekly programs throughout the year. They are divided into three terms: April through July, September through December, and January through March. The average program is 15 minutes' long. A teacher's manual describing the contents of all the series is published for each term two months in advance so that the teachers can incorporate the radio program into their school curriculum.

According to a survey made in June 1961, 97% of all schools were equipped with radio sets. However, classroom utilization is much lower than this figure implies. The survey showed that approximately 58% of elementary schools, 39% of junior high schools, and 26% of senior high schools used NHK's school broadcasts.

The organizational structure of NHK includes a central committee composed of prominent educators who decide policy. Directly under this committee are a series of subcommittees, one for each series of programs. For example, the elementary school science subcommittee plans the yearly program content and over-all course offering. These committees are made up of teachers, university specialists, and NHK technical specialists. The radio teacher, selected mainly from the teaching profession, plans each program in cooperation with NHK personnel assigned to the educational radio division.

In 1947 the Japan Radio and Television Education Association was inaugurated to promote the utilization of school radio programs in the classroom. The Association has published a monthly journal, "Radio and Television," since 1948. It holds a yearly national convention on radio education to stimulate interest in this medium. Encouraged by the national convention, teachers in various cities have organized into local, prefectural, and regional teachers' organizations to study and use school broadcasts in the classroom. In 1950 the National Federation of Teachers' Associations for the Study of Radio and Television was organized. Its National Educational Radio Convention, which has been held in a different city each year since 1950, attracts an average of 5,000 delegates from all over the country.

The NHK Radio and Television Cultural Research Institute conducts surveys and research in the field of mass communication. One of its main functions is to investigate the effects of NHK's radio programs and make recommendations to the Central Committee.

Additional features of educational radio in Japan involve the use of radio and television to transmit lessons for correspondence education. A combination of radio and television programs integrated with printed materials for high schools and colleges will be utilized in the near future. Another unique feature of radio in Japan is the wide use of small individual studios located in the majority of schools. These studios broadcast music, news, special events, and locally produced programs to the classes in the building. Students produce most of the programs.

Japanese FM radio is now in an experimental stage. All radio in Japan is AM except overseas broadcasts. To avoid radio invasion from Communist China, Korea, and Russia, serious consideration is being given to changing Japanese radio from AM to FM in the near future. The allocation of FM channels is controlled by the Ministry of Communication. Recently the Ministry of Education proposed setting up 39 FM educational radio stations throughout the country so that school and adult correspondence education activities may be extended.

Educational Television

There are two sources of national educational classroom television in Japan. One is NHK and the other is the commercial educational network of the NET (Nippon Educational Television). Keen competition between these two organizations has accelerated the development of television for the classroom in Japan.

The second channel of NHK is devoted exclusively to educational broadcasts to complement the more general programming of its first channel. The coverage extends from the northern island of Hokkaido to the southern island of Kyushu through a national network. The weekly programming of 135 lessons at all levels includes 50 series for the classroom and 35 series for adult education. The administrative organization of NHK television is similar to that of its educational radio division.

The commercial television station of NET telecasts 37 weekly 20-minute classroom lessons in the Tokyo area. Some of the lessons are relayed to commercial stations in other cities. It is hoped that NET programs will spread to most of the commercial stations so that Japan will have two national networks of instructional television.

A survey conducted by the NHK Research Institute in 1961 reported that 75% of the elementary schools, 62% of the junior high schools, and 57% of the high schools owned television sets. Of this number 69% of the elementary schools, 36% of the junior high schools, and 8% of the senior high schools use their television sets for classroom teaching. The number of high school programs is very low.

Closed-circuit television has been introduced into Japan with a few systems installed at universities and public schools. With the nationwide coverage of NHK educational television and NET educational television, closed-circuit television has been limited primarily to extracurricular activities. There are no courses being taught over closed-circuit television in Japan.

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Educational Film

The use of film in the classroom has lagged far behind the use of radio and television. The main reasons for this gap are the high cost of equipment and lack of films. A number of Japanese companies are producing classroom films but the majority of the studios are on so small a scale that they can only produce one or two films for education per year. However, during the last several years noticeable gains have been made in film production and equipment. In addition, educational television is now using many educational films and is beginning to supply educational kinescopes and films.

Educational Films
Produced in 1960

Science	55
Social Studies	37
Vocational	8
Physical Education	7
Music	7
Moral Education	6
Others	17
Total	137

Japanese Schools Equipped with 16mm Sound Projectors (1959)

Elementary	5, 169 (19%)
Junior High	1, 289 (11%)
Senior High	553 (17%)

Tokyo Schools Equipped with 16mm Sound Projectors (1961)

Elementary	1, 036 (72%)
Junior High	479 (64%)
Senior High	142 (53%)

In addition to the above, there are estimated to be about 10, 000 projectors owned by various types of film libraries, public halls, local boards of education, and public libraries and museums. The distribution of educational films is accomplished by a network of film libraries of varying sizes from those with a few titles to those with several thousand titles. Each of the 46 prefectures maintains one or more film libraries which supply films to the schools in their areas. In addition to the prefectural film libraries the larger cities maintain their own film libraries.

Film Libraries

	No. of Libraries	Titles
Prefectural	119	11, 019
Municipal	150	11, 292
Cooperative Local	191	9, 318
Cooperative School	181	14, 040
Others	75	2, 467
Total	716	48, 136

Because of the limited budgets available to individual schools, great interest is being shown in the 8mm sound projector. Two Japanese companies have already marketed 8mm sound optical and magnetic projectors and several others are working on designs. Commercial producers of educational film have recognized the potential of this development and have begun marketing 8mm educational films at low prices. For example, the same 16mm sound film which sells for $75 is now available for $15 in an 8mm version. When mass production of 8mm sound projectors brings the price down to a reasonable figure, many Japanese educators predict a real increase in the use of educational film in the classroom.

In 1946 the Japan Film Education Association was formed to promote the production of educational films, slides, and projectors, and to encourage their use in school and social education. This organization holds a yearly national convention and publishes a monthly journal entitled "Audio-Visual Education."

Production of 8mm Equipment

	Projectors (silent)	Cameras
1957	23,300	51,250
1958	36,917	171,767
1959	66,722	278,142
1960	115,053	594,465

Educational Slides and Filmstrips

Slides and filmstrips are being used in Japanese classrooms in rapidly growing numbers because of their effectiveness, simplicity, and low cost. With the additional improvement in cameras, film, and projectors, their use surpasses any other projected material. Since 1950 these materials have been designed to fit into the course of study set up by the Ministry of Education.

One of the results of the camera 'boom' has been a marked increase in the number of teacher-made slides used in the classroom. With the recent inexpensive automatic cameras and the faster low-cost color film, many teachers are now able to acquire their own slides for educational purposes.

Nearly 40 commercial producers, many of them members of the Slide and Filmstrip Association, are now marketing slides and filmstrips for the schools. In addition there are 16 major producers of slides and filmstrip projectors with nearly 30 models to choose from. The latest survey shows that 88% of elementary schools and 80% of secondary schools own slide projectors.

Language Laboratory

English is studied by nearly every Japanese student from the seventh grade to college graduation. The primary method of teaching is to read literature in English and translate it into Japanese or vice-versa. However, very few students who graduate from college after ten years of English classes can carry on a conversation in English.

With the advent of the language laboratory movement in America, considerable interest was evident among some language teachers in the potential of improving the spoken English in Japan. In addition, several Japanese producers of tape recorders became interested in the use of their product for the language laboratory.

The first fully equipped language laboratory in the Tokyo area was installed at the International Christian University in 1959 with four channels for 50 booths equipped with Sony tape recorders primarily for English. French, German, and Japanese for non-Japanese students are also now presented. By December 1961 there were 57 language laboratories at the following levels: college and university - 30; senior high school - 8; junior high school - 3; special language schools and private companies - 16. The minimum number of booths is 6 and the maximum number is 106.

At the present time there are six Japanese companies producing language laboratory equipment with several firms marketing an entire unit. These advanced systems have all the facilities of the up-to-date language laboratories in America. The taped lessons have been patterned closely after the various approaches developed in America.

Interest in the language laboratory movement has been steadily growing. In July 1961 The Language Laboratory Association of Japan was formed and held its first national conference. The new association has been active in emphasizing the need for the audio-visual method in language laboratory use. Two experiments are now under way to determine the effects of the language laboratory with Japanese students.

Teaching Machines and Programmed Instruction

In 1960 the first public lecture in Japan on the subject of teaching machines was presented by Dr. Benjamin C. Duke at the annual Audio-Visual Conference of the International Christian University. From that introduction Japanese educators have been showing an increasing interest in this new movement. Led by Professor Mitoji Nishimoto, Director of the Audio-Visual Center of the International Christian University, the 1961 summer conference on the campus was the first national Japanese meeting devoted entirely to the subject of teaching machines. The Audio-Visual Center translated "Teaching Machines and Programmed Learning" by Lumsdaine into Japanese and had it published for this conference. In addition, five American machines and many programs and books were displayed and demonstrated at the 1961 conference.

The first teaching machine designed in Japan was made by Mr. Shogo Tanaka, Assistant Professor of Psychology, Osaka University, in 1961. This intricate machine utilizes the principle of 'branching' and has been applied to small group use only. The Gakken Memorizer, an inexpensive device, is now being marketed by the Gakken Company. In addition, several Japanese companies have produced a teaching machine which goes under the name of Synchroreader or Synchrofax.

As developments occur in the American teaching machine field, more Japanese educators and companies are becoming interested in teaching machines. With the great dexterity in producing inexpensive machinery and devices, and the very important task of preparing students for the inevitable entrance examinations from the junior high school on, the future of teaching machines and programmed learning looks very bright in Japan.

Research

Scientific research in the field of education had its beginning in Japan shortly after World War I. However, because of financial difficulties and the strict centralized educational system, educational research did not develop until after World War II. Under the postwar plan of education each of the 46 prefectural boards of education and the 68 municipal boards of education established an educational research institute to meet the local needs in promoting a democratic school system. In addition, most of the national teacher-training colleges and universities also created educational research institutes. As a result, research in education has been making significant progress and research specialists have been increasing in number, particularly in the area of educational sociology and psychology.

In the area of educational media, radio and television research has been the most conspicuous during the last decade. NHK Radio-Television Cultural Research Institute, originally planned for audience surveys, has gradually been devoting more of its effort to school radio and television research. Consequently, as a public corporation supported by the people through its fee system, NHK is devoting substantial funds for educational research.

The daily access to instructional radio and television has stimulated research by public school teachers and professors. It is worth noting that a number of research workers with film, slides, etc., as well as radio and television, have come from the ranks of teachers and professors who do not represent research institutes but who are closely associated with audio-visual education and are endeavoring to develop media research in Japan. In addition, the Research Bureau of the Ministry of Education has supported several valuable media research studies. With the combination of the Ministry of Education, the many prefectural, municipal, and university research institutes, and individual teachers and professors, media research is slowly gaining recognition and support throughout Japan.

National Organizations

Japan Association of School Audio-Visual Education; founded in 1949; conducts an annual conference; purpose is to promote the classroom use of Audio-Visual materials; c/o Film Education Building, Sakura-cho 26, Shiba Nishikubo, Minato, Tokyo.

The Japan Film Education Association; founded in 1947; publishes a monthly magazine "Audio-Visual Education" to promote the classroom and adult use of educational film and other audio-visual materials; c/o Film Education Building, Sakura-cho 26, Shiba Nishikubo, Minato, Tokyo.

The Japan Radio Television Education Association; founded in 1948; publishes a monthly magazine "Radio-Television Education" to promote the utilization of radio and television programs in the classroom; 2-10, Minami Sakuma-cho, Minato, Tokyo.

Japan Society for the Study of Education; founded in 1941; conducts an annual conference; purpose is to develop and promote the study of education; publishes a quarterly journal "The Study of Education"; membership: 1, 500; at the annual conference a section is devoted to Audio-Visual Education; (Japanese Associations of Educational Sociology, and Educational Psychology also conduct an annual conference with sections devoted to audio-visual education or education for mass communication); all three addresses: c/o Department of Education, Tokyo University, Motofuji-cho, Bunkyo, Tokyo.

National Association of Audio-Visual Education; founded in 1950; conducts an annual conference; purpose is to promote the utilization of audio-visual materials for adult education; c/o Film Education Building, Sakura-cho 26, Shiba Nishikubo, Minato, Tokyo.

National Federation of Teachers' Associations for the Study of Radio-Television Education; founded in 1949; conducts an annual conference; purpose is to study and promote the classroom use of educational radio and television; c/o NHK, Uchisaiwai-cho, Chiyoda, Tokyo.

National Conference on Audio-Visual Education; initiated in 1954; conducts an annual summer conference at the International Christian University; purpose is to develop audio-visual courses in colleges and universities and to study and promote the classroom use of audio-visual materials; membership: 200; publishes an annual "Proceedings of the National Conference" in English and Japanese; Audio-Visual Center, International Christian University, Mitaka, Tokyo.

National Society for the Study of Radio-Television Education; founded in 1955; conducts an annual summer conference at the International Christian University; purpose is to study and promote the classroom use of educational radio and television; conducts limited research; membership: 250; publishes an annual "Proceedings of the National Conference" in English and Japanese; Audio-Visual Center, International Christian University, Mitaka, Tokyo.

NEW ZEALAND

EDUCATIONAL STATISTICS

Population (1960)	2,403,488
Racial Groups	92% British stock 8% Maoris
National Language (spoken by 100%)	English
Compulsory Education (100%)	Eight Years
School Population	
Elementary	426,000
Secondary	120,000
Higher Education	18,000
Total	564,000

Teacher Certification
(some variations)

Elementary--Two years' Teachers' College plus probationary period.

Secondary---University graduate plus one year at Teachers' College.

EDUCATIONAL MEDIA

Walter B. Harris

Education in New Zealand is much the same as in Great Britain or North America, and New Zealand educators face similar problems. There is a shortage of teachers; classes are rather too large; there is a race between increasing school population and the erection of new buildings; and the maintenance of standards of scholarship is a perpetual concern.

Educational media in New Zealand schools also have similarity to American and English practices. To some teachers they are 'frills' to be used if time permits. To many they are a valuable aid to teaching. As a consequence there is great variety in their use. In some schools half a dozen classes are crowded into a small hall to see films without preparation and little follow-up. In other schools teachers preview films and prepare the introduction and follow-up for their classes, and the film is shown as a

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normal part of a particular classroom project.

Practical problems limit the effective use of films and filmstrips in many schools. Often there is only one classroom with curtains for darkening the room and several classes have to see a film together to reduce disorganization. In some schools screenings are not well organized so that there is too much time wasted in getting the projector and screen from a storeroom and setting them up. Only about half the teachers can operate a projector, though in some schools pupils are trained to be efficient projectionists. Under the guidance of the National Film Library, many schools have a visual-aids teacher who coordinates the use of materials in his school.

National Film Library

All schools in New Zealand may obtain their films, filmstrips, and records from the National Film Library, a branch of the Department of Education. It lends 16mm films, 35mm filmstrips, and records free of charge to schools and organizations having an educational purpose. The headquarters of the Library is in Wellington. The Auckland branch serves the northern half of the North Island with 16mm films and a branch is envisaged for Christchurch to serve the South Island.

The 16mm Library contains more than 24, 000 films with about 4, 600 titles. They are mostly factual films covering a very wide range of topics for classes from junior level to university and adult groups. There are more than 4, 000 borrowers of films with about 5, 000 reels of film issued each week. Of these 71% go to schools and colleges.

Since the production of instructional 16mm films for schools is expensive, New Zealand makes very few but imports them from many countries. Films on New Zealand topics of a general nature are made by the National Film Unit and purchased by the Library.

All the larger schools and more than two thirds of the total number of schools in New Zealand are equipped with 16mm sound film projectors. The Department of Education grants a dollar-for-dollar subsidy to primary schools on funds raised for the purchase of projectors. Postprimary schools do not receive such subsidies but have instead a larger incidental grant which they may spend as they please. The number of projectors purchased by schools and organizations of all kinds is steadily increasing with consequent demands for more films.

The filmstrip section of the National film Library is run somewhat differently from the 16mm section. It began in 1942 with a small stock of overseas filmstrips. To meet the demand from teachers for filmstrips on New Zealand subjects, a filmstrip producer was appointed and, in conjunction with the National Publicity Studios, other Departments, and New Zealand business firms, more than 200 New Zealand double-frame films have so far been produced. They are not available for sale overseas, but arrangements have been made for the exchange of negatives with education departments in other countries. In this way, the filmstrips produced by the State Departments of Education in Australia are available to New Zealand schools, and filmstrips produced in New Zealand are available in Australia.

All filmstrips are available on loan, free of change, from 11 district Filmstrip Libraries. It is the policy of the Department of Education to encourage every school to build up its own library of filmstrips and, whatever their cost, they are offered to schools for 45 cents each for black and white and 90 cents for colour. Each year the 11 filmstrip lending libraries receive about 3, 500 copies of filmstrips and schools buy about 30, 000 copies for their individual use. About 90% of the schools in New Zealand own filmstrip projectors.

The tape recorder is a recent and valuable aid to learning. Only about 500 schools so far have purchased tape recorders, partly because of import restrictions, but it is expected that within a few years nearly all schools will have them. Their purchase by primary schools is subsidized, dollar-for-dollar, by the Department of Education. The teachers are finding an increasing number of uses for the tape recorder. One development is the exchange of tapes with schools in New Zealand and overseas. The National Film Library issues a Tape Exchange Directory in which are listed the addresses of schools wanting to exchange tapes. Another development just begun is the formation of a Tape Recording Library. It is proposed to build up a collection of master tapes on a variety of topics, somewhat similar to school broadcasts, to issue a catalog, and to invite schools to send in blank tapes for recording on them the particular programmes they want.

In conjunction with the National Archives, the National Film Library is collecting New Zealand films of historical interest to preserve them as illustrations of New Zealand life and customs. The owner of an old film is asked to lend it for viewing to see if it is worth preserving. If it is suitable, a negative is made at the National Film Unit; from this at least three 16mm prints are made. One copy is preserved by the National Archives, another is available for circulation through the Film Library, and a third is given to the owner of the original film. Some of these early films are very suitable for schools.

Educational Radio

About 95% of New Zealand's schools are equipped to receive educational broadcasts which are sent out through the national network each school day from 1:30 to 2:00 pm. All the New Zealand broadcast services are state-owned. When the service began about 23 years ago, separate programmes were designed and transmitted from the main stations, but it was soon found that higher standards could be achieved by preparing a national programme for all schools. The broadcasts are for primary schools with the exception of one 15-minute broadcast a week at 2:30 pm to assist in the teaching of French in postprimary schools.

The programmes are prepared and supervised by the School Broadcast Section of the New Zealand Broadcasting Commission in consultation with a School Broadcasts Advisory Committee consisting of teachers and officers of the Department of Education. All costs are borne by the

Broadcasting Service with the exception of the notes and booklets which are published and distributed by the Department of Education.

Members of the staff of School Broadcasts visit all the Teachers' Colleges each year and give lecture-demonstrations to the students. They attend teachers' in-service training courses, discuss the programmes with teachers, and keep in touch with current thought on the school curriculum. Much of the training of teachers, however, comes from the suggestions given in the School Broadcasts booklets.

About 1, 600 children living in remote places, or compelled by some physical defect to live at home, receive their education through the Correspondence School. Each morning for 15 minutes there is a broadcast from all the principal stations in which the Headmaster and the teachers of the Correspondence School talk to their pupils. Some of the broadcasts provide the oral work, such as speech training or French pronunciation, which cannot be given by correspondence. Others are designed to develop interest in particular assignments or to promote participation in the various clubs which the school has organized for these isolated children.

Educational Television

It was not until June 1961 that television programmes were broadcast in New Zealand. By the end of the year three stations were operating, each three and one-half hours a night, to cover limited areas, and about 18, 000 sets were in use. New Zealand, a long, narrow, rather mountainous country, is difficult for television relay and it will perhaps be ten years before there is good television reception in the provincial towns. An advisory committee on educational television has been set up to consider possible developments. It is probable that a few closed-circuit systems will soon be established experimentally in schools. Television sets are made in New Zealand and are expensive (about $550) and most schools have 16mm projectors and free access to an extensive film library. At present there is very little demand from teachers for educational television, although they accept the conclusions of other countries that it can be, if well organized, a useful educational medium.

Teacher Education

Those who wish to become primary school teachers in New Zealand have three or four years' postprimary schooling and attend a course at a Teachers' College for only two years. For one year after this they are probationary assistants and teach full time in a school under the supervision of the Head Teacher. They receive a generous living allowance for the whole of their period of training. In their two years at the Teachers' College they spend nearly half the time in observation and practice teaching in the schools. In the short time they are at the Teachers' College they have to study the content and methods of teaching of all the subjects in the curriculum. For each subject not more than about 50 hours for lecture work are available in the two years. Postprimary school teachers receive one year's teacher training after they have gained their university degrees.

In courses so short and crowded there is no time for specific courses in audio-visual education. Many lecturers, however, use audio-visual methods and a few give specific instructions by using a variety of materials and equipment in relation to their own subjects, particularly in the teaching of social studies. Most students learn something about the use of audio-visual materials incidentally from their lectures, by seeing them used in their practice schools, and by giving practice lessons. A difficulty is that many lecturers have never learned to use audio-visual materials effectively themselves. There are no courses of training for them.

Most Teachers' Colleges have an Audio-Visual Club which meets for about 90 minutes each week. Its strength depends upon the enthusiasm of individual lecturers. About ten percent of all students qualify for their 16mm projectionist's certificate, though more can operate a projector and may qualify later. Only a limited number of students will have had actual experience in handling and using a filmstrip projector or a tape recorder before they leave the Teachers' College. On the other hand, New Zealanders tend to be practical people, and a large number of teachers learn to use this equipment when the need and the opportunity arises later in schools.

Research

In a small country of two and one-half million people, the number of persons who devote time to research in education is very limited. In general, New Zealanders do not undertake fundamental research work in education, but are more interested in practical problems. They are familiar with and build upon the fundamental research work done overseas. Very few attempt to qualify for the New Zealand Ph. D. degree. Those who wish to gain a Doctorate go to universities in England or the United States. As a result, educational media research is, for all practical purposes, virtually nonexistent in New Zealand at this time.

PHILIPPINES

EDUCATIONAL STATISTICS

National Population (1960)	27,455,799
Racial Groups	
Filipino	99.1%
Chinese	0.5%
Others	0.4%
National Language	
Pilipino (Tagalog)	19.4%
Other Languages	
Cebuano	24.7%
Hiligaynon	12.3%
Iloko (Ilocano)	12.2%
Bicol	7.6%
Samar-Leyte	6.3%
Pampango	3.3%
Pangasinan	2.7%
Others	11.5%
Compulsory education (88%)	Four Years
School Population (1960)	
Elementary (Grades 1-6)	4,145,534
Secondary (Grades 7-10)	680,262
College and University	276,750
Total	5,102,546
Teacher Qualifications (no system of certification)	
Elementary	
Class A--Four-year college graduate.	35.9%
Class B--Two to three-year college.	57.9%
Class C--Secondary graduate and lower.	6.2%
Secondary School	
Class A--Four-year college graduate.	92.3%
Class B--Two-year college.	6.9%
Class C--Secondary graduate.	0.8%

EDUCATIONAL MEDIA

Rosario S. Tan

Educational media is just beginning to develop in the Philippines. Only a few institutions are organizing audio-visual programs or undertaking audio-visual activities. Among these institutions are the Bureau of Public Schools, some government colleges (including the state university and the University of the Philippines), private universities and colleges, government offices, and commercial firms. Of the programs which have been organized, that of the Bureau of Public Schools is the one which is envisioned to be the most nationwide in scope.

The audio-visual program of the Bureau of Public Schools was organized in 1953 as part of a curriculum-development project financed jointly by the United States Government through its International Cooperation Administration (ICA), and by the Philippine Government through its National Economic Council (NEC). To carry out the program an audio-visual center on the national level was established in the General Office of the Bureau of Public Schools in Manila.

Rosario S. Tan is Administrator of the Audio-Visual Center in the General Office of the Philippine Bureau of Public Schools, Manila. He was a classroom teacher and an elementary school principal before his transfer to the General Office. In the General Office he held such positions as textbook writer, curriculum coordinator, and audio-visual supervisor, before his appointment as Audio-Visual Administrator. To prepare him for his present responsibility, Mr. Tan was sent to the United States in 1957 to specialize in audio-visual education under the Technical Assistance Program between the United States and Philippine Governments.

As a corollary to the national center, regional audio-visual centers were initiated in each of the eight public normal schools in the country.

The Audio-Visual Center in Manila is a part of the Curriculum Division of the General Office of the Bureau of Public Schools. It has a staff of ten regular members under an Audio-Visual Administrator. Its facilities include a film library, a photographic laboratory, a recording room, a projection or preview room, and a service room for film inspection and graphic art projects. Its film library contains more than 1,000 reels of 16mm sound film, about 4,000 rolls of filmstrips, and many slides, disc records, tape recordings, flat pictures, and miscellaneous materials.

Representing the program on the national level, the Audio-Visual Center in the General Office in Manila is charged with the main tasks of over-all leadership, coordination, and supervision of the audio-visual education program for the public school system of the country. These functions include teacher training in audio-visual education; school visitations and observation of classes; production, distribution, and evaluation of teaching materials; and assistance to schools in organizing local programs.

The audio-visual centers which have been set up in each of the eight public normal schools in the country serve not only as a laboratory for the preservice training of teachers, but also as a regional center for the in-service training of teachers in the area where the normal school is located. The regional centers are provided with some of the basic audio-visual equipment and a very limited number of sound films, filmstrips, recordings, and other audio-visual materials. In the main, they depend on the national Audio-Visual Center in Manila for their supply. The instructor of the audio-visual education course in the normal school is in charge of the regional center.

On the local level, the establishment of some type of centers for audio-visual materials has been started in some school divisions (province), school districts (municipalities), and individual school units. However, the resources in these centers consist mainly of visual materials prepared locally, received from the national Audio-Visual Center, or purchased from manufacturers. It is doubtful whether any of these local centers, at this stage, have been able to acquire the basic audio-visual equipment. A countrywide survey of audio-visual facilities in the public schools which was started during the middle part of the 1961-62 school year has not been completed. Nevertheless it is safe to report that very few schools in the country are equipped with audio-visual equipment such as projectors or recorders.

Aside from the Bureau of Public Schools, there are also other institutions which have set up their own audio-visual programs or are engaged in media activities. Among the government colleges which have set up audio-visual centers are the University of the Philippines, Philippine Normal College, Philippine College of Arts and Trades, and the Samar Institute of Technology.

Of fifteen private schools which responded to a request for a report on audio-visual education activities, ten reported having organized an audio-visual program. These ten private schools are: the Philippine Women's University, the Feati University, the Far Eastern University, the Philippine Union College, the National Teachers' College, and St. Scholastica's College (all in or near Manila); and the Silliman University, the Central Philippine University, the University of San Carlos, and the University of Negros Occidental (located in the southern provinces). Two of these--the Philippine Women's University and the Silliman University--also have a speech laboratory in their audio-visual centers.

Government offices which undertake media activities of one kind or another are: the National Media Production Center, the Presidential Assistant on Community Development, the Bureau of Agricultural Extension, the Department of Health, and a few others. The audio-visual activities being performed by these offices, however, are more for mass-information purposes than for purely educational use.

Teacher Education

A three-unit basic course in audio-visual education is a required course in the four-year elementary teacher curriculum in the normal school. In addition, four other courses are offered as electives; namely, Production and Utilization of Audio-Visual Materials, Preparation of Teaching Materials for Local Needs, Administration of the Audio-Visual Program, and Seminar in Audio-Visual Education. A graduate course in audio-visual education is also offered in two private schools.

To take care of the in-service training of teachers in audio-visual education, the national Audio-Visual Center conducts seminars to train selected key field personnel (high school principals, district supervisors, elementary school principals, and ranking teachers) for local leadership in audio-visual education. In turn, the participants in these seminars are expected to hold local seminars and workshops for the teachers in their respective stations or areas. At least two key field personnel, one from the elementary level and the other from the secondary level, have been trained from each school division or province. Subjects and activities in the seminar include philosophy and principles, preparation and utilization, organization and administration, radio and recording, and basic photography. Training is conducted through lectures, discussions, demonstrations, films, laboratory work, and talks by resource persons.

Educational Radio

The Bureau of Public Schools has begun a program of educational radio with the assistance of the Australian Government through the Colombo Plan. The program is handled by a Radio Education Unit under the Publications and Public Relations Division of the General Office of the Bureau of Public Schools, Manila. The broadcasts are aired over the government radio station on free time. The Australian Government has donated about 500 radio sets which were distributed to the schools around Manila and nearby provinces for use in receiving the broadcasts. Lessons in social studies, Pilipino, and English for elementary grades, are aired regularly every week. The coverage of the broadcast, however, is still very limited. Future plans envisage the establishment of relay stations to enable schools in other parts of the country to receive the broadcasts.

Educational Television

The organization of an instructional television program for some selected high schools in Manila is under exploration on an experimental basis. The same government station will telecast the lessons on free time. The telecasts may begin with lessons in science and English. If present plans are carried through, the television programs may start during the school year 1962-63.

Research

Educational media research activity in the Philippines at present is practically nil. Institutions interested in educational media are still too preoccupied with the task of organization to be able to give attention to this aspect of the field. There is also a lack of trained personnel to carry out media research. In addition, inadequate facilities and funds have been obstructing organized educational media research activity.

To sum up the developments of educational media in the Philippines, it can be seen that the beginning which has been made is still insignificant. The role of the media in the educational effort may have gained some recognition in this corner of the globe, but its continued development in the face of the odds that block its way is still a matter of deepest concern.

REPUBLIC OF CHINA

EDUCATIONAL STATISTICS

Population	11, 431, 341
Racial Group	Chinese
National Language (spoken by 100%)	Chinese
Compulsory Education (95%)	Six Years
School Population	
Elementary (Grades 1-6)	1, 888, 783
High School (Grades 7-12)	263, 365
Vocational School (4 years)	34, 288
Teacher Training (4 years)	12, 305
College & University (3 & 4-year courses)	35, 060
Total	2, 233, 801

Teacher Certification

Elementary
Class A--Teacher Training School (High School level) graduate plus one year's experience.
Class B--High School diploma plus teacher examination.

High School
Class A--Four-year college or university graduate.
Class B--Teacher Training School graduate plus one year's experience.
Provisional--High School graduate plus teacher examination.

EDUCATIONAL MEDIA

Liu Chia-Chun

In 1950, one year after the Chinese Government arrived in Taiwan, an organization named 'Committee for the Promotion of Audio-Visual Education' was established under the Ministry of Education. At that time there were eight educational film mobile units projecting a total of about 800 films and a regulation on the use of teaching films in schools was put into effect. In the early days these two factors contributed to the progress made on Taiwan in the field of educational media.

In 1956 the Ministry of Education set up the 'Guidance Committee for the Motion Picture Industry,' urging film producers to make more films, strengthening the cooperation in film production between Taiwan and Hongkong, and bringing in tax-exempt movie supplies. During 1957-58 more than 100 classroom and documentary films were made under the guidance of the Ministry of Education.

Liu Chia-Chun is Professor of Audio-Visual Education at the National Chengchi University, Taipei, Republic of China, and Senior Specialist of Audio-Visual Education, Ministry of Education. He is a graduate of the National Yun-nan University. In 1957 he received the MA Degree in Audio-Visual Instructional Materials from Teachers' College, Columbia University. After returning from the Conference on School Broadcasting - Radio and Television in Italy in December 1961, Mr. Liu initiated educational television in Taipei. At the present time he also holds the following positions: Professor, National Art College on Educational Television; Chairman, Program Committee, Educational Radio Broadcasting Station; Executive Secretary, Educational Television Station, Taipei.

In late 1958, however, the Guidance Committee ended and its functions were incorporated into the Government Information Office.

Today most of the audio-visual materials owned by schools have been imported. From 1953 to 1954 the Provincial Government, through UNESCO, purchased many materials from the United States. In 1957 the Ministry of Education purchased and distributed among elementary schools 220 radios, 60 projectors, and various other items. As a result there are in varying degrees a number of schools with materials and equipment. Their use has been limited, due particularly to the lack of trained personnel and suitable materials.

National Educational Materials Center

Recognizing the need for a national program for the improvement of educational media, the government, in cooperation with UNESCO and the International Cooperation Administration, founded the National Educational Materials Center in 1955. At its inception the function of this Center stressed the development of all educational media, while research was restricted due to lack of funds.

The Materials Center is the national library of educational materials. Its main objectives are, first, to collect curriculum materials from this island and other countries for the use of elementary and secondary schools and, secondly, to produce and circulate audio-visual materials in order to enrich instruction. To accomplish this task the Materials Center has delegated the responsibility to the Audio-Visual Education Center attached to the Taiwan Provincial Normal University. Circulated throughout the island by mobile units are 1,288 educational films, 950 filmstrips, 1,200 slides, and 330 teaching tapes. An average of 600 films and more than 300 filmstrips per week are loaned to schools from this Center.

The Center produces films, filmstrips, and recorded tapes. With magnastriping facilities Mandarin Chinese soundtracks are being added to 20 to 30 foreign films each year. An Audio-Visual Education Digest is published bimonthly by the Center in addition to 30 documents on methods for using the newer media.

Radio

In 1949 three stations were on the air; by 1954 the number had risen to 26. Today there are 63 radio stations owning transmitters with a total power of 620 kilowatts. Statistics published in May 1961 by the Provincial Government show that one out of every 16 persons on the island owns a radio receiver.

Recognizing the importance of radio, the Ministry of Education in the period from 1952 to 1958 stipulated that no less than 25% of the programming by publicly owned stations and 10% by privately owned stations must be educational. With an object to furthering the eductional use of radio, an Educational Radio Station began broadcasting from Taipei in 1960. It has one medium-wave transmitter with power sufficient to cover only the northern part of the island. In order to reach every corner of the island and overseas areas, the station has been renting the third network from the China Broadcasting Corporation. Every day the station broadcasts nine and one-half hours. The scope of the programs includes regular school courses and social items (adult education). The station follows the school curriculum for those who are not in regular school attendance, with courses at both elementary and secondary school level. College- and university-level courses are also broadcast.

Television

The Ministry of Education in 1957 consulted with Radio Corporation of America to establish the first television station on the island but failed to reach an agreement.

However, in November of 1961 an educational television station, under the joint auspices of the Ministry of Education and the Electron Research Institute of the University of Communication, began telecasting a one-hour daily program on a trial basis from the National Education Materials Center. The results have been most rewarding and plans will soon be made to extend the coverage and broadcast time.

Educational Film

Under the Ministry of Education the Chung Hwa Educational Film Studio was formed for the purpose of producing 16mm educational films. A series of instructional films were produced during the war. Soon after the war, it was moved to Taiwan. From 1951 to 1954 another 15 educational films were produced. The studio came to an end in 1958 when its equipment was handed over to the National Arts College. The building facilities, training aids, and technical staff members of the studio were consolidated into a College for students' practical training. At the present time there are only one or two classroom films produced in Taiwan each year.

Teacher Training

Training in the use of educational media is accomplished during preservice and in-service training. At the preservice level there are audio-visual courses at two universities: National Chengchi University (three-credit course for education and journalism students); and the Taiwan Provincial Normal University (two-credit course for education students). Most normal schools, which are at the high school level, offer audio-visual courses for the senior students who will teach in the elementary school. In-service training is undertaken through workshops, traveling exhibits, and seminars.

Research

There has been little interest in media research in the Republic of China. Lack of funds, personnel, and facilities have retarded the growth of audio-visual education in general which has, of necessity, restricted research activity.

REPUBLIC OF KOREA

EDUCATIONAL STATISTICS

National Population	25, 000, 000
Racial Group	Korean
National Language (Spoken by 100%)	Korean
Compulsory Education (99. 4%)	Six Years
School Population	
Elementary (Grades 1-6)	3, 854, 942
Middle School (Grades 7-9)	620, 520
High School (Grades 10-12)	177, 601
Higher Education	142, 576
Total	4, 795, 639

Teacher Certification

Elementary
- Class A--Class B certificate + 3 years' experience.
- Class B--Normal School (High School) diploma.
- Class C--College degree or Junior College diploma. High School diploma + one year special preservice training.

Middle School
- Class A--Class B certificate + 3 years' experience.
- Class B--Junior Teachers' College diploma.
- Class C--College degree or Junior College diploma.

High School
- Class A--Class B certificate + 3 years' experience.
- Class B--Four-year Teachers' College.
- Class C--Four-year college degree.

EDUCATIONAL MEDIA

Lee Yong Kul

In Korea war played the role of catalyst in developing audio-visual education. When the North Korean Communists staged their invasion in June 1950, the government and people of the Republic of Korea were forced to evacuate to Pusan, a port city on the southern tip of the Korean peninsula. In this situation, there were many difficulties to be overcome but the problem of educating the young, by far the most serious concern of the Korean people, was immediately undertaken. There were however continuous shortages of teachers, textbooks, and other basic instructional materials.

Under the circumstances it was inevitable for some educators to think in terms of audio-visual education. Thus two special projects were simultaneously initiated in 1951. A few pioneering educators chartered a theatre in which the 'Motion Picture Classroom' was created to instruct a large group of students through films, and the Ministry of Education organized the 'Radio School' intended for primary and middle grades. They were enthusiastically received by students, teachers, and parents.

Mr. Lee Yong Kul is Director of the Demonstration Audio-Visual Center in Seoul. Mr. Lee taught Physics and Mathematics in the public schools prior to the Korean War. In 1958 he participated in the Communications Media Leadership Program at Indiana University, completing the Masters Degree program. Upon his return to Korea he served as the Audio-Visual Utilization Officer of the Demonstration Audio-Visual Center until his appointment as Director by the Ministry of Education in 1960.

Contrary to the initial high hope, however, both programs were unable to carry out their original objectives. The type of instructional films the Motion Picture Classroom needed was simply not available, and the programming of the Radio School proved to be a failure mainly due to the inadequacy of the staff.

In spite of the apparent failure, the core group of audio-visual pioneers continued their efforts to lay the foundation for the future development of audio-visual education in Korea. The first issue of an audio-visual weekly appeared in 1953; the first audio-visual workshop for in-service teachers was held in 1956; and the revived educational radio program went on the air in 1956.

Up until 1957 the Ministry of Education had not shown any active interest in audio-visual education even though it provided some financial subsidies to major audio-visual organizations. With the aim of establishing a governmental audio-visual unit, the Ministry of Education entered into a contract with the International Cooperation Administration in Korea to create a Demonstration Audio-Visual Center (DAVC) on a five-year basis. By the end of 1961 a total of ten Koreans had been trained in the United States, three American specialists rendered administrative and training services in Korea, two Provincial Centers were established, and audio-visual equipment and materials valued at approximately $200, 000 were brought in under the contract.

In the meantime a considerable number of teachers throughout the country have organized programs to develop audio-visual education in their respective schools. The majority of organized programs have taken place in primary schools and/or local educational research institutes which serve the primary segment of education.

A number of obstacles to audio-visual education in Korea have been encountered and many still exist. It is true that some educators saw the value of audio-visual education immediately, trying in one way or another to incorporate these methods into their instructional practices. Moreover, the philosophy of audio-visual education was congenial to the new trend of Korean education which emphasized learning by discovery and understanding rather than the traditional way of memorizing textbook material. Strangely enough, however, the higher educational administrators remained unaware of the possibilities of the newer media and thus failed to provide the administrative and financial support necessary for effective programs. In addition, at the classroom teachers' level, many thought it too cumbersome to bother with machines and materials while they enjoyed a good reputation for having more students pass the entrance examinations by employing traditional instructional methods. Also there were those practical problems which confront all technologically underdeveloped countries: modern equipment and materials were hard to obtain, and when they were available there was then no electricity. To many teachers and school administrators audio-visual education in Korea seems to be a practical impossibility, at least for the time being.

Teacher Education

Of the 84 colleges and universities in Korea, only the following are offering audio-visual courses:

Seoul National University School of Education	3 credits (elective)
Ewha Woman's University School of Education	3 credits (required)
Yunsei University Educational Department	2 credits (elective)
Chungang University Educational Department	3 credits (required)
Sungkyun Kwan University Educational Department	2 credits (elective)

All the courses are introductory, intended to acquaint the students with the basic idea of educational media. In fact, it is impossible for these institutions to go beyond the introductory level because of the lack of personnel, equipment, and facilities needed for advanced training. In organizing the curriculum of the newly established junior teachers' colleges, the Ministry of Education integrated audio-visual materials into the required instructional methods course and set up a minor audio-visual course for those students who want to become audio-visual coordinators. However only one of the nine new colleges will be able to teach the audio-visual course in 1962 because there are still many problems, notably the difficulty of obtaining competent instructors.

Role of the Ministry of Education

Even though the Ministry of Education initiated in 1957 a joint Korean-United States project to establish the Demonstration Audio-Visual Center (DAVC), it remained unconcerned with the national development of audio-visual education until 1961. In that year it appointed an Audio-Visual Supervisor, set up the Audio-Visual Section, and allocated for the first time in four years 40 million Hwan (about $30,000 U.S.) for the operation of DAVC. The Ministry has also instructed the provincial governments to establish a position for Audio-Visual Supervisors at both the provincial and county levels.

The newly established Audio-Visual Section is charged with the responsibility of performing, among others, the following functions: conduct a national survey of audio-visual materials and equipment; conduct a five-year plan for establishing an audio-visual center in each province; initiate an audio-visual course in the standard curriculum of teacher-training institutes; and provide subsidies to those city and county educational offices which establish an Instructional Materials Center.

The DAVC, with its two local centers in Pusan and Kwangju, is exerting an all-out effort to promote and develop audio-visual education throughout Korea. It is currently peforming the following functions:

> Audio-Visual Services--Films and filmstrips whose titles amount to about 500 each are loaned to schools, colleges, and other educational organizations. Other major services include the free loaning of basic equipment on a short-term basis, projection services, film previewing programs for in-service teachers, and professional and technical advice as to the organization and operation of school audio-visual programs.
>
> Training--An extensive training program is being carried out for in-service teachers and school administrators.
>
> Production--Production was not included in the original function of the Center. Beginning in 1962, however, the production of photographic slides and filmstrips will get under way.
>
> Survey and Research--It has been impossible to conduct any research due to the lack of funds and the subsequent miscarriage of a plan for organizing a research department. However, continuous efforts are being made to prepare for experimental research.

Educational Radio

Radio broadcasting began in Korea in 1927 but the educational programs for classrooms did not exist until 1951, the second year of the Korean War. The Ministry of Education initiated 'Radio School' intended for primary and middle grades. Each morning a 15-minute program dealing with various subjects was broadcast, generally in lecture form. However a number of obstacles appeared. Good radio teachers were difficult to find and the program failed to meet classroom needs. It was soon discontinued.

In May of 1956 school radio was revived by the Korean Educational Broadcasting Association. Three times a week 15-minute programs in social studies, Korean language, and music were broadcast for the classroom. The current educational program was formulated in April 1961 and is divided into two major types: supplementary lectures and general enrichment. The daily broadcasts include three 15-minute classroom programs and three evening programs for home listening.

Educational Television

The first commerical television station was established in 1956 but because of the limited number of receiving sets and sponsors, it remained experimental. In September of 1957 the station started a daytime program for school children which lasted only three months due to financial and technical difficulties. In 1959 fire destroyed the first television venture in Korea. The Ministry of Public Information, as part of its effort to increase the flow of information, established a government-owned television station in late 1961. It is now televising four hours a day (5:30 - 9:15 pm) and its educational program consists of showing one educational film every other day.

Educational Film

The main producer of nontheatrical films has been the Motion Picture Section of the Office of Public Information which was established in 1948. For various reasons the production of instructional films was not attempted until 1959 when the Office of Public Information completed one of the best film production facilities in the Far East. Since then a total of 48 educational films has been released both in 35mm and 16mm. The Motion Picture Section was promoted in 1961 to the National Motion Picture Production

Center and is continuing the production of educational and training films requested by governmental agencies.

Audio-Visual Publications

The Audio-Visual Weekly, whose first issue appeared in 1953, has made many valuable contributions toward development of audio-visual education in Korea. It has introduced audio-visual theories and practices prevalent in America and Japan and offered practical suggestions applicable for Korean schools. Its current format is a four-page tabloid and approximately 7,000 copies are being circulated across the country. In the past three years a total of three audio-visual books has been published. They are all introductory, more or less similar to the textbooks published in the United States.

Research

Educational media research has not been undertaken in Korea. A general lack of support has resulted in a lack of funds for such activity. However, with the recent active participation of the Ministry of Education in the media field, and with the establishment of the Demonstration Audio-Visual Center, it is expected that research programs will be initiated in the very near future.

Audio-Visual Materials and Equipment Owned by 4, 265 Primary Schools in Korea
(March 1, 1962)

Motion Picture Projectors--	
8mm	5
16mm	81
35mm	6
Slide Projectors	896
Opaque Projectors	103
Tape Recorders	425
Phonographs	1, 645
Radios	2, 067
Slides--	
color (sets)	8, 440
black and white (sets)	11, 050
Filmstrips (titles)	132
Motion Pictures--	
8mm (titles)	12
16mm (titles)	19
35mm (titles)	18
Disc Records	33, 508
Magnetic Tapes	1, 396
Felt Boards	3, 851

EDUCATIONAL STATISTICS

National Population	27, 500, 000
Racial Groups	
Thai	25, 000, 000
Chinese	1, 000, 000
Others	1, 500, 000
National Language (used in all schools)	Thai
Compulsory Education	Four Years
School Population (1959)	
Elementary (Grades 1-7)	3, 935, 549
Secondary (Grades 8-12)	268, 199
Higher Education	41, 929
Total	4, 245, 677
Teacher Certification	
Elementary	
Class A--Four-year college degree.	170
Class B--Diploma in Education (2-3 years' college).	1, 500
Class C--Certificate in Education (1-5 years' training in teacher-training school after graduation of lower secondary school).	43, 800
Secondary	
Class A--Four-year college degree.	1, 350
Class B--Diploma in Education.	5, 150
Class C--Certificate in Education.	15, 000

EDUCATIONAL MEDIA

Ambhorn Meesook

Educational media in Thailand is in its infancy. The use of mass media for educational purposes is still something new, with the development of this aspect of education being very slow. There are several reasons behind this. First there are the obvious physical obstacles. Equipment, such as radio receivers, projectors, films, television sets, etc., has to be imported and thus is restricted because of the shortage of foreign currency.

A serious problem is the lack of understanding of the nature of educational media among teachers, educators, and the public. It has generally been felt that audio-visual materials are a luxury and the support given to their development has been far from sufficient, with the result that we have at present a very small body of trained personnel in this field. At any rate, it is fairly safe to state that during the postwar years we have seen a very gradual change and more people are becoming aware of the important role educational media can play in improving education.

Progress has been made in developing a foundation for a comprehensive national educational materials programme involving the full range of printed and audio-visual materials. On the audio-visual side, the first phase, by design,

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concentrated on the establishment of pilot centres in key programmes to introduce the proven techniques of modern tools of education where they were most needed. Examples are found in the film library of the Adult Education Division and the Audio-Visual Centre of the College of Education.

The second phase, still dominant, is exploring radio education and the potential in local instructional materials. Administrators, supervisors, and teachers have been trained in the classroom utilization of educational radio programmes and in the production and effective use of simple inexpensive materials from resources locally available. The bulk of the energies to date, then, has gone into making operational those concepts and techniques which common sense indicated were needed and would work in Thailand. The programme has now reached the stage where concerted attention must be given to research.

The current status of educational media in Thailand can best be summarized through the brief descriptions of three programs--the Ministry of Education, the College of Education, and Chulalongkorn University--in which the primary media developments in Thailand are taking place.

Ministry of Education

The Division of Educational Information of the Ministry of Education operates the Education Broadcasting Service of Thailand which has been in existence since 1954. The first radio programmes were confined to the evening hours designed to give students and teachers general education programmes.

School broadcasting was begun in 1958 on an experimental basis to 286 schools. The schools outside of the Bangkok area were equipped with battery-powered receiving sets provided through the Colombo Plan. As the popularity of the radio lessons became apparent, schools with sufficient funds began to purchase receiving sets. There are now about 1,500 listening schools.

The school radio broadcasts at present include four 20-minute English programmes each week, repeated four times to allow for multiple-class listening; four programmes per week of "Social Studies for the Primary School"; and music once a fortnight for the elementary school. A six-year plan has been drawn up to extend the English, social studies, and music broadcasts through the senior high school, and to introduce nature study, science, and Thai studies.

Television was introduced in Thailand in 1955. From the beginning the necessity for educational television broadcasts has been recognized. Long before the Ministry of Education started to arrange programmes on both of the television stations in Bangkok, which are supported by commercial advertisement, programmes of an educational nature such as English language teaching, serious panel discussions, and features were regularly presented by eminent people from various fields and especially from educational circles.

Since 1959 the Ministry of Education has been presenting programmes for teachers and children on both the Army television and Thai television. This action was prompted by the general feeling that the standards of programmes, especially those for children, needed to be raised; and also by the desire of the Ministry of Education to train personnel for the School Television project which will eventually be initiated. Due to limited funds and personnel resources these programmes have had to be very simple in nature, but nevertheless they have appeared to be quite popular among our younger viewers. In 1962 a monthly magazine programme for children is presented on Thai television, and a half-hour programme on a literary or cultural topic, also designed for children, is broadcast on the Army television.

Instructional television may be a long way away as far as Thailand is concerned, but we do not think that there can be many teachers or educators in this country who will deny that television would be effective for the teaching of such subjects as science and social studies. When we are ready to try using television in the classroom it is almost certain that it will be enthusiastically received.

The Audio-Visual Section of the Ministry of Education, with a staff of 12, serves educational institutions of all types. It is responsible for the audio-visual materials and equipment of the Ministry's projects, the production of slides, filmstrips, and motion pictures, training of personnel, and distribution of materials. It maintains a library of 1,000 reels of 16mm film, 560 filmstrips, and 4,000 slides.

The Audio-Visual Section extends its services to all parts of the country through its 77 working units--5 in Bangkok and 72 in the provinces. Each unit is equipped with a 16mm sound projector, a slide-filmstrip projector, a public address system, a tape recorder and a radio receiver.

The Division of Education Aids, Department of Educational Techniques, of the Ministry of Education, produces simple inexpensive teaching materials to encourage schools to produce their own with locally available materials. A model shop has been organized where teachers may view and buy simple instructional materials.

College of Education

The Audio-Visual Center of the College of Education in Bangkok was organized in 1955 under an Indiana University contract. At the present time the Center has a staff of seven, some of whom have been trained abroad, and a programme of preservice and in-service training, campus service, and production. The preservice training includes seven audio-visual courses for both graduate and undergraduate students. The in-service programme involves conferences and workshops. The production services include nonprojection materials, recordings, still and motion picture photography, closed-circuit radio, and publication of books and pamphlets on educational media.

Chulalongkorn University

The Faculty of Education, Chulalongkorn University, set up an audio-visual center with the assistance of Indiana University specialists in 1957 under an ICA programme. A year later the audio-visual center began to extend its services to the other six faculties of the University. In addition to seven audio-visual coordinators from the seven faculties, the center has a staff of six, some of whom have been trained abroad. A library of materials and equipment is maintained at the center.

Each student in the Faculty of Education is required to take at least one basic course in audio-visual education during the third year study. A two-year postgraduate course leading to the Masters Degree in Education, majoring in audio-visual communication, is also offered.

A unique development in the field of educational media has been the increased interest in language laboratories. With the introduction and suggestions made by a number of educators from abroad who came to work in Thailand, interest in the learning and teaching of the English language by the 'aural-oral approach' has been growing steadily during recent years, and efforts have been made to improve the teaching of English by means of various types of educational media. In 1958 the College of Education, Prasarnmitr, Bangkok, was the first educational institution that was equipped with an entire language laboratory unit under the Indiana University Contract, and shortly after that three more language laboratories were installed at the Faculty of Education, Chulalongkorn University, and the two colleges at Patoomwan and Bangsaen affiliated to the College of Education, Prasarnmitr, under the same contract.

In addition to the four colleges mentioned above, three institutes have also been equipped with entire units of language laboratories; namely, The Royal Military Academy, The Royal Air Force Academy, and the American University Alumni Language Center in Bangkok.

The pioneering of the language laboratory in the colleges of education has stimulated some teacher-training institutions to undertake the installation of this kind of educational media out of their own budget. Barnsomdej Teacher Training School purchased a full unit of language laboratory equipment from Japan and installed it in 1961. Suan Sunantha Teacher Training School installed a low-cost laboratory on a small scale. Suan Dusit Teacher Training School is arranging for a small 'sound lab' to be installed at the expense of approximately $3, 000.

At present there are nine language laboratories in eight institutions of learning and one language center, the main objective being to teach and learn the English language for preservice and in-service teachers. Among these nine language laboratories the minimum number of booths is 12 and the maximum is 60. The frequency of use ranges from 5 to 40 hours a week.

Sensing the importance of the language laboratory as a type of educational media, the Department of Teacher Education, Ministry of Education, with the cooperation of the South East Asia Regional English Project (SEAREP), is planning to have language laboratories installed in eight more teacher-training institutions during 1963.

Research

Several research projects have been undertaken. However, on the whole, very little attention has been given to the area of educational media research. The major obstacles are the common deficiencies in the lack of trained personnel and funds. There is hope for improvement, particularly with the development of audio-visual programmes at the several universities, but progress will be slow. There are simply not enough human and financial resources to simultaneously serve all the priority problems facing expansion and improvement of education in Thailand. Media research must wait its turn along with the many other important needs.

III. INTERNATIONAL EDUCATIONAL MEDIA RESEARCH

An area of educational media research which has been given little consideration anywhere in the world is that involving two or more nations with different social, ethnic, and religious backgrounds. The obvious difficulties of conducting such international research activity have precluded most attempts. With the unique problems facing this type of research the question must first be answered as to whether there is a need for international educational media research and, if so, along what lines.

During the 1962 Conference of Asian Educational Media Specialists convened under this Project at the International Christian University in Tokyo, representatives from the ten participating nations considered this question. Their ideas and recommendations are summarized in this section.

International educational media research is necessary today and will be more necessary tomorrow for several reasons. First of all, the technological developments of the 20th Century have brought our nations much closer together than ever before. No nation can now be isolated from the rest of the world. And, in fact, it will soon become next to impossible to keep out foreign educational influences whether welcomed or not. A major development bringing about this situation is the television satellite.

At the time of the 1962 Conference of Asian Educational Media Specialists, plans by the United States and England to utilize a man-made satellite circling the earth as a television relay station for simultaneous reception in America and England had just been revealed. The 18 Asian Ministers of Education, meeting at the UNESCO Conference in Tokyo at the same time, also indicated their profound interest in this new idea. They made many references to the plan and hailed it as an important step forward in developing international relations and helping to improve education. It is in the context of improving education which will necessitate international educational media research.

Conceivably, more than the two originating nations will use the programs telecast on a worldwide basis from one or more television satellites. This definite possibility stimulated several Asian Ministers of Education to indicate an interest in educational television if their countries would not have to bear the prohibitively high recurring production costs and all that go along with setting up an educational television network. The language barrier, it was felt, would be overcome in one way or another, quite possibly with simultaneous translation facilities.

The revolutionary probability of using a satellite transmitting educational television programs around the world leads to vital questions. Is a television program designed to teach high school science to American and English students just as effective for Indonesian students ? Or, more basically, are the effects of instructional and educational television the same with an American student as they are with an Indian Hindu, a Thai Buddhist, and a Malayan Muslim ? We don't have these answers today, but we may have to know them sooner than expected. We will need the results of international educational media research because, from all indications, we are about to embark on an era of international media broadcasts.

The second reason necessitating international media research is based on contemporary conditions. There are very few facilities in Asia for the production of teaching materials. For example, the majority of Asian countries produce no classroom films and few filmstrips and slides, not to mention a host of other materials. As a result a substantial proportion of the available teaching materials in Asia, especially films and in increasing numbers programmed instruction materials, have been imported from the West and in particular from America.

Are teaching materials for American high school students just as effective for Asian students ? The answer isn't known, but nevertheless American producers are distributing them widely throughout Asia, and the American Government maintains large numbers of films and other materials in the USIS Libraries for local schools and organizations. Asian educators use them since there is little other choice. If a teacher in this part of the world wants to use a teaching film, most of the time he will use one made for American schools and follow the methods based on American research.

What characteristics of a teaching material are necessary for a worldwide audience ? Are they different from those effective for a Western audience ? Again the answer is not known, but American teaching materials dominate the Asian scene for better or for worse. Some question the ethical right for America to distribute her materials in Asia on the scale she does without undertaking an effort to determine the answers to these questions. International research which cuts across social, ethnic, religious, and national boundaries will give us the answer. If American teaching materials and methods are going to continue to influence this field throughout Asia, there is justification for it to base its position on a firm foundation of international research findings.

Another reason for conducting international educational media research is founded on the age-old academic tradition--the extension of knowledge. If a body of knowledge concerning educational media is to be developed into a recognized area of study, as has been under way in America for some time, is it complete without the knowledge of the effects of educational media on non-Western societies ?

The claim has been made in Asia that audio-visual education is an American idea with an American tradition and an American orientation. There is just enough element of truth in this statement to take it seriously. The time has come to broaden the perspective. A firm base of international research is of primary importance to widen the applicability of the educational media.

Turning from the necessity for international research, the next consideration involves the direction for research with respect to the conditions in the Far East and South Pacific. As reported in Sections I and II, there are vast differences among the educational systems in these countries.

As a result there are also vast differences in their capability for participating in educational media research. In view of this the conference delegates made the following recommendations and selected several of the media for special attention.

A subject which is receiving growing attention in Asia is programmed instruction through book form. The ease of application, the relative inexpensiveness, the lack of required equipment, and the initial American research results have stimulated the import of American programmed materials in science and mathematics in a number of countries. Because of the great potential for improving Asian education, and because nearly every country could participate effectively and responsibly, international research into the effects of programmed instruction materials in book form received the highest priority. It was recommended that programmed instruction research in mathematics, the international language, be given the first consideration. All countries indicated an interest in participating in international programmed instruction research.

The second media most applicable for research study in Asia and the South Pacific is educational radio. Most countries have some system of radio for classroom use and radio sets are comparatively available, at least on a scale enabling research. Since this is an important established media with some years of experience, international research into its effectiveness would be most feasible.

International educational television research, not only in view of the high interest in the television satellite relay system but also because of the increasing availability, is recommended to include Japan, Australia and, on a limited scale at this time, the Republic of China and India. Extremely high interest is being shown toward educational and instructional television in Asia, and research including Asian countries is badly needed to provide a firm basis to gain support for the necessary funds for its establishment. Japanese companies are working on designs for inexpensive transistorized television sets which will markedly widen the possibilities for educational television and television research in Asia.

Film research potentialities are limited to the countries where electricity is widely distributed and where projectors are available. Nevertheless, there are enough countries capable of joining international educational film research that such activity was strongly recommended. It is true, though, that the interest in educational television is beginning to compete favorably with the interest in film.

Filmstrip and slide research is a good possibility because facilities are available in many countries and they have been used for a number of years. The experience thus gained would be valuable in conducting research. Tape recorder use is also increasing and deserves consideration; however, there is a need for battery operated sets before these will be in widespread use.

Finally, three additional general recommendations were stressed. The major portion of funds to support international educational media research involving Far Eastern and South Pacific countries must come from the West. The limited funds available for all educational purposes, of necessity, restrict support for media research. The personnel and organizations interested in joining this activity have very limited funds at their disposal.

Another point is that for Asian countries to participate more fully and successfully in media research, specialists must be trained in both the media field and research methods. Since this kind of training is unavailable in nearly every country in Asia, external support will be required.

The greatest need for research with educational media in Asia should be concentrated on its effectiveness in combatting illiteracy. With literacy ranging as low as 20% in some areas, before mass education can become effective, illiteracy must be greatly reduced. International research into the effects of educational media to decrease illiteracy, which is an international problem, is fundamental and should be given major consideration.

IV. RESEARCH ABSTRACTS AND CASE STUDIES

RESEARCH ABSTRACTS

RADIO

Brown, John J. **Australia**

AN EXPERIMENTAL COMPARISON OF THE MENTAL PROCESSES OF CHILDREN TAUGHT IN A RADIO SITUATION WITH THOSE OF CHILDREN TAUGHT IN A FACE-TO-FACE SITUATION, 1959.
Brown, John J., University of Western Australia, Nedlands, Australia.

Purpose: To make a comparison of the mental processes of a class listening to a lesson over the radio with those of a similar audience in the physical presence of the broadcaster.

Procedure: A sixth- and seventh-grade class were randomly divided into two groups, a radio group and a face-to-face group. Each group consisting of 21 members was placed in separate but adjoining classrooms. A broadcaster in the same room as the face-to-face group was then able to broadcast a lesson to the radio group over the loudspeaker. In this way both experimental groups received the identical lesson in terms of length and content. At the conclusion of the lesson three objective tests measuring learning of facts, comprehension, and application, based on the lesson content, were administered and the results statistically compared.

Results: The results showed that seventh-grade children, when placed in a radio situation, recall facts equally as well as children in the face-to-face situation. However, they also showed that children in the sixth grade, when placed in the radio situation, do not recall facts as well as children taught in the physical presence of the speaker. For both grades, children taught over the radio did not understand the content of the lesson as well as children in the classroom situation. However, no significant difference was found between the experimental groups in their ability to apply what was taught in the lesson.

Matsumoto, Masatatsu **Japan**

RADIO DRAMATIZATION IN AUDIO-VISUAL EDUCATION, May-June 1956. Four elementary schools, Tottori City. Matsumoto, Masatatsu, Assistant Professor of Education, Tottori University, Tottori City, Japan.

Purpose: To compare the effects of teaching by means of a radio dramatization with a slide presentation and a verbalized lesson.

Procedure: Three hundred sixty students from the third and sixth grades were randomly divided into three groups. Group A in each of four schools was taught a lesson by means of a series of 19 color slides with teacher commentary. Group B was taught the same lesson in radio drama form adapted from the slide series by the NHK Tottori Radio Drama Section. Group C was also taught the same content but through a story-telling presentation. Uniform lessons were prepared by the experimenter so that the students in the four experimental schools followed a similar verbal presentation and slide commentary. An objective examination was constructed to test the amount of learning gained from the material in the lessons. For the administering of the examination each group was further divided into three subgroups. Subgroup I in each category was tested immediately after the lesson only. Subgroup II was tested one month later only. Subgroup III was required to reconstruct the material one month later and did not take the objective examination.

Results: In a comparison made within each category of the teaching methods on the immediate posttest and the delayed test, the radio dramatization was the most effective at the lower-grade level. The emotional aspect of the drama was attributed to this development since it was concluded that the third graders became more emotionally involved in the story than the sixth graders, resulting in greater retention. The sixth graders, when comparing the immediate posttest and the one-month-delayed test within each category, did best with the verbal presentation. In the comparison made between teaching methods, the group taught with slides performed significantly better at both grade levels and on both the immediate-after and delayed tests than the group verbally taught. The slide group also did better than the drama group, but not significantly, in every comparison.

NHK Radio-Television Cultural Research Institute Japan

THE LISTENING EFFECTS OF "RADIO ENGLISH CLASSROOM," April 1954-March 1955 (three semesters).
Six junior high schools in the rural area of Tokyo. NHK Radio-Television Cultural Research Institute, Tokyo, Japan.

Purpose: To measure the effects of an educational radio series designed to serve as a review of textbook material in an English Course.

Procedure: Twelve first-year English classes (seventh grade) with 534 students were randomly divided into six experimental and six control groups with one class from both groups located in each of six schools. The English course consisted of four periods per week over a period of 32 weeks. During each period the regular material from the English textbook, approved by the Ministry of Education, was taught to both groups. However, the experimental group during the last 15 minutes of three periods each week also listened to an English radio program presented by the national educational radio station, NHK. The radio programs were designed to review the material presented during the regular period by the classroom teacher. The control groups utilized textbooks only. Tests were prepared by a committee of teachers of English and administered by the use of the tape recorder. Students were required to select the correct answer from printed multiple-choice answers after listening to the item from the tape recorder. Directions on the tape were given in Japanese. Students identified words, phrases, and sentences. A similar test was given to all students after each of the three semesters.

Results: The first-semester test resulted in a 5% level of significance favoring the experimental group as a whole. The second-semester test showed no significant differences with only one individual school favoring the experimental group significantly. The third and final test again produced a 5% level of significance in favor of the radio classes as a whole. In the over-all comparison of the groups as a whole on all three tests, the experimental group utilizing radio produced substantially better results than the control group. The NHK Research Institute concluded that there was sufficient evidence of the educational value of the Radio English Classroom program and urged its continuation.

NHK Radio-Television Cultural Research Institute   Japan

THE EFFECTS OF "RADIO JAPANESE CLASSROOM," April 1954-December 1955 (five semesters).
Three elementary schools in the rural areas of Tokyo.
NHK Radio-Television Cultural Research Institute, Tokyo, Japan.

Purpose: To determine the effects on the students' listening ability with educational radio programs.

Procedure: Two hundred sixty-five third-grade students and three hundred fifth-grade students were randomly divided into two groups at each grade level within each school. The nationwide Japanese language program entitled "Radio Japanese Classroom" was broadcast 15 minutes once a week for 62 weeks at the third-grade level and 61 weeks at the fifth-grade level. The programming at the third-grade level was aimed at the choice and use of nouns and adjectives and pronunciation of Japanese words. At the fifth-grade level the emphasis was on expression, telephone conversations, and loudspeaker announcements on the street. The content of the broadcasts included information, demonstration, dialogue, drama, and recordings with colloquial expressions taken from rural Japan. Once each week the experimental groups had a 5-minute introduction, the 15-minute radio program, and a 10-minute follow-up directed by an NHK manual. The control groups were taught without the use of radio in the manner followed in previous years. Tests of listening ability only were administered with the tape recorder after the first, second, and last semester of the experiment. The tests were prepared by a committee of Japanese teachers and included a test of intonation identification, word identification, and ability to select appropriate oral summaries of stories and dialogues after listening to several alternatives.

Results: It was found that the groups utilizing educational radio were strengthened in half the number of experimental test periods. In the other half of the test periods the experimental groups did as well as the control groups. Thus the argument that the use of educational radio in teaching the Japanese language will hinder the students, which is a common complaint in Japan, was repudiated in this experiment.

NHK Radio-Television Cultural Research Institute Japan

THE EFFECTS OF EDUCATIONAL "RADIO MUSIC CLASSROOM," April-December 1956 (two semesters). NHK Radio-Television Cultural Research Institute, Tokyo, Japan.

Purpose: To determine the comparative effectiveness of teaching part of a music course by utilizing educational radio music programs.

Procedure: Four hundred eighty third-grade students and 540 fifth-grade students from six elementary schools in Tokyo participated in the experiment. Both groups were randomly divided into control and experimental groups so that each school had two experimental and two control classes at both grade levels. The control classes, during the two-semester experiment, had two 45-minute music periods per week taught by the regular music teachers. The experimental classes had two 45-minute music periods per week with the first 30 minutes taught by the classroom music teacher followed by a 15-minute music program from NHK, the national educational radio station. The radio programs each week included two 15-minute presentations at both the third- and fifth-grade levels. All teachers and the radio programs followed the music course of study as prescribed by the Ministry of Education. At the end of each of the two semesters, objective multiple-choice tests were administered at both grade levels. The tests were administered orally with the tape recorder so that all students at each grade level experienced the same test conditions. The questions were taken from the Ministry's course of study.

Results: The experimental class as a whole, utilizing educational radio music programs, produced higher averages in all tests at both grade levels, but not significantly at the normal levels of acceptance.

Okamura, Jiro Japan

THE EFFECTS ON RECALL WITH FOUR METHODS OF EDUCATIONAL RADIO UTILIZATION, January 1961, Haruyoshi Elementary School, Fukuoka City. Okamura, Jiro, Instructor of Education, Fukuoka College of Education, Fukuoka City, Japan.

Purpose: To compare the effects on retention with four variations of the follow-up to an educational radio program.

Procedure: Eighty third-grade students were randomly divided into four groups. Group A listened to an NHK educational radio program on the Japanese language without any instructions. Group B listened to the same program followed by a question-and-answer period in which the teacher posed a series of questions related to the radio program for voluntary class response. Group C listened to the same program followed by small-group discussion with little teacher participation. Group D, after listening to the program, participated in both a question-and-answer period and a small-group discussion. A test on the program content was administered immediately after the experiment, one week later, three weeks later, and six weeks after the experiment.

Results: Group A, with no teacher instruction, scored much lower than any of the other groups on all tests. Group D, with both the question-and-answer period and the small-group discussion, scored substantially higher than the other three groups. The difference between Group D and the other three groups increased as the weeks passed, showing a much slower rate of decrease than the other groups. However, because of the time involved in conducting both the small-group discussion and the question-and-answer period in the follow-up, the experimentor recommended the method with Group B which used only the question-and-answer follow-up and scored the second highest scores on every test. The rate of retention was greatly affected by the follow-up procedure in this experiment.

Queensland Institute for Education Research Australia

AN EXPERIMENTAL INVESTIGATION OF METHOD IN SCHOOL BROADCASTING, October-November 1955. Queensland Institute for Education Research, Australia.

Purpose: To compare four methods of treatment of a broadcast in social studies with a view to discovering significant differences, if any, in their effectiveness.

Procedure: Five groups, each with 25 sixth-grade children from four schools, were randomly selected. An educational radio lesson on the story of Lewis' and Clark's journey to the West Coast of America was chosen. The following five methods were employed:

Group 1--15-minute preliminary teaching, 15-minute broadcast, no follow-up teaching;
Group 2--no preliminary teaching, 15-minute broadcast, 15-minute follow-up teaching;
Group 3--15-minute preliminary teaching, 15-minute broadcast, 10-minute follow-up teaching;
Group 4--no preliminary teaching, 15-minute broadcast, no follow-up teaching;
Group 5--30-minute lesson by teacher, no broadcast.

Introduction and follow-up were standardized. Immediately following the presentation all students were objectively tested on the subject.

Results: The order of merit of the five methods was as follows:

Group 3--introduction, broadcast, follow-up (30-minute);
Group 1--introduction, broadcast (30-minute);
Group 2--broadcast, follow-up (30-minute);
Group 5--lesson by teacher (30-minute);
Group 4--broadcast only (15-minute).

The statistical analysis showed that there was a 1% level of significant difference between the top three groups and the bottom two. There was little difference among Groups 3, 1, and 2, or between Groups 5 and 4. The results of this experiment appear to support the soundness of current beliefs regarding the use of school broadcasts. The least effective of the five methods is clearly the 15-minute broadcast which is not supplemented in the classroom. The method recommended for the treatment of school broadcasts; i.e., preliminary and follow-up treatment with the broadcast, showed a significant superiority over the oral class lesson in this experiment.

Saito, Itsuo Japan

INFLUENCE OF TEACHER'S ATTITUDE ON STUDENT'S REACTION TOWARD EDUCATIONAL RADIO, 1957. Seven elementary schools, Okayama Prefecture. Saito, Itsuo, Assistant Professor of Education, Okayama University, Okayama City, Japan.

Purpose: To investigate the relationship of the teacher's attitude and preferences with that of the student's reaction toward educational radio.

Procedure: Seventy-seven classes in seven elementary schools selected to represent urban and rural populations were included in this study. Each student completed a questionnaire in which the classroom radio programs which they used were ranked according to interest. Then the students ranked the programs according to their usefulness. Each teacher of the 77 elementary classes, all of whom taught all subjects in a self-contained class, completed a questionnaire to indicate which subjects he liked to teach best and in which he was the strongest. The teachers also ranked the radio programs according to their usefulness. The individual results of the students and their teacher in each class were analyzed.

Results: There was a high correlation between the teachers' favorite subject and the students' preference of classroom radio programs; a similar correlation was thus determined between the teachers' least favored subject and the students' dislike of radio programs. There was even a higher correlation between student and teacher opinion in the ranking of the radio programs according to their usefulness. It was concluded that the teacher's attitude and preference have a significant influence on students' reaction toward educational radio programs.

Uemura, Hidekichi Japan

THE EFFECTS OF EDUCATIONAL RADIO AND RELATED TEACHING METHODS ON STUDENT'S ABILITY IN THE JAPANESE LANGUAGE, November 1956-March 1957. Matsuhama Junior High School, Niigata City. Uemura, Hidekichi, Teacher, Matsuhama Junior High School, Niigata City, Japan.

Purpose: To compare the effects of a national educational radio series on the Japanese language with various other methods adapted from the radio programs.

Procedure: NHK conducts a twice-weekly program for classroom use entitled "Native Language for Junior High School Students." For this experiment five programs were selected to be used in four variations with 182 eighth-grade students. Group A listened to the five regular lessons without any teacher participation. Group

B listened to the same programs, each followed by a five-minute teacher summary. Group C did not listen to the programs but had five lessons in which the radio scripts were read by the students and the teacher explained and discussed them. Group D simply read the scripts without any teacher assistance. A written examination in three sections including reading, writing, and vocabulary was administered to all students following the last program.

Results: On the vocabulary and written sections, Group C performed best. There was little difference on the reading section between all four groups. Group A as a whole scored the poorest results. The explanation for this is that the programs emphasized Kanji, the Chinese characters. Since these are essentially pictorial, the use of radio alone was not sufficient for the purpose of teaching the written form of the Japanese language. It was concluded that the radio programs for the Japanese language must be supplemented by other methods and materials at the junior high school level for the most effective results.

Ukawa, Katsumi Japan

THE EFFECTS OF RADIO DRAMA IN LEARNING INFORMATION, July 1957. An elementary school, Takamatsu City, Kagawa Prefecture. Ukawa, Katsumi, Assistant Professor of Education, Kagawa University, Takamatsu City.

Purpose: To compare the effects of radio drama with storytelling and printed material in learning information in social studies.

Procedure: Four hundred fourth-grade students were randomly divided into four groups. Group A listened to one 30-minute radio dramatization from the national educational radio station, NHK, which conducted an elementary social studies program on "Ancient Japan." Group

B listened to the same program content rewritten in story-telling form and presented to this group by tape recording using one teacher's voice. Group C read the same content in the story-telling form from printed copies. Group D was used merely as a control factor to determine if the other groups learned from the three methods, and therefore participated during the examination periods only without any presentations. An additional factor was implemented when each of the four groups was further divided into two subgroups. Subgroup I of each of the four major groups was tested for immediate recall, and Subgroup II of each of the four categories was tested two weeks later only. An objective examination, locally prepared and consisting of multiple-choice and completion items, was administered to all students.

Results: Immediate recall: Subsection I of Groups A, B, and C, which were tested for immediate recall, scored significantly better than Subsection I of Group D. Thus the students learned substantial amounts of information from all three methods of teaching when tested immediately after the presentations. The students who were taught by dramatization and story-telling did better than those who were taught by reading only, but not significantly. Delayed recall: the students who were taught by dramatization and story-telling did better than the group taught by reading only, but not significantly.

UNESCO India

AN INDIAN EXPERIMENT IN FARM RADIO FORUMS, 1956-57. Press, Film, and Radio in the World, Series of Studies published by UNESCO.

Purpose: To investigate the suitability of radio farm forum as an agent for the transmission of knowledge; to examine group discussion as a means to that end; and to gain some insights into the role of radio farm forum as a new institution in village life.

Procedure: Five districts in Bombay State with an area the size of Ceylon and a population comparable to those of Sweden, Australia, and Bulgaria, were selected. The literacy rate was 20.7%. One hundred forty-five villages averaging 850 people per village were chosen as the experimental group and provided with radio sets where none was previously available. A similar number of villages without radio sets was determined as the control group. In the experimental villages a leader was selected to conduct the listening sessions, a follow-up discussion, and submit reports. Twenty special farm forum programs were broadcast twice a week from 6:30 to 7:00 pm. The programs concerned such subjects as the democratic process in terms of the villager, fruit growing, adult education and village libraries, the rat menace, and dry farming. A survey to evaluate the results of the experiment took place in three stages: prebroadcast, observation, and postbroadcast. A questionnaire designed to assess the level of knowledge before and after the experiment was administered.

Results: Radio farm forum as an agent for the transmission of knowledge proved to be a success. Increase in knowledge in the forum villages between prebroadcasts and postbroadcasts was significant, whereas in the nonforum villages it was negligible. Group discussion, an innovation in rural life, was also considered most successful with 20% of the members participating actively, 50% participating variously, and 30% rather inactive. Women, however, participated slightly. Radio farm forum as a new institution in village life developed rapidly into decision-making bodies capable of speeding up common pursuits of the village faster than the locally elected bodies. The forums thus became an instrument in village democracy. It was concluded that the radio farm forum is a valuable contribution to rural India.

Xoomsai, M. L. Tooi, and Ratamangkala, P. **Thailand**

A SURVEY OF RESULTS OF USING SCHOOL BROADCAST AS A TEACHING METHOD, 1958-59. Xoomsai, M. L. Tooi, and Ratamangkala, P., Educational and Psychological Test Bureau, Department of Educational Research, College of Education, Bangkok, Thailand.

Purpose: To determine if pupil achievement in the subjects taught through the school broadcast is better than that in the same subjects taught without the aid of the school broadcast.

Procedure: An experimental group was selected for survey to represent 10% of the schools in the broadcast experimental area which included subjects in the second, third, sixth, and seventh grades. The schools in the control group, those not listening to the school broadcast programs, were selected to represent schools which were the most similar to each of the experimental schools. The control group and the experimental group each consisted of 1,900 students from the same grade levels. Grades two and three were surveyed in music, and grades six and seven in English. Four groups of trained test officials were sent out to administer the tests which included written and oral tests of knowledge, attitude, and appreciation.

Results: In singing and music appreciation in grades two and three, Group A scored significantly better at the 1% level. On the whole, Group A scored better than average, and Group B lower than average and sometimes poor. It was thus concluded that school broadcasts had done very well in bringing up the levels of music achievement among the pupils which otherwise would have been below average. In the English tests of reading, writing, and aural ability, it was found that the school broadcasts did not help toward raising the aural ability at both the sixth and seventh grades. However, the experimental group scored

significantly higher (1%) than the nonradio group on the tests of reading and writing. It was concluded that radio was an effective educational method but that it could be made more effective in English if teachers came to realize that radio is only a tool and that the teachers of English still have full responsibility for the achievement of their pupils.

Yoshimura, Kiyoshi Japan

A STUDY OF THE EFFECTS OF EDUCATIONAL RADIO, October 1958. Eight elementary schools, Nagasaki City. Yoshimura, Kiyoshi, Assistant Professor of Education, Nagasaki University, Nagasaki City, Japan.

Purpose: To compare the differences in learning from an educational radio program between students who are taught with daily radio programs and those who have never used educational radio.

Procedure: Eight hundred sixty fourth- and fifth-grade students were selected from eight schools, four of which utilize the NHK national educational radio programs in their daily curriculum, and the other four which make no use of radio. A tape recording of a teacher-made program was recorded and presented to all students over the closed-circuit radio systems. An objective test on the program content was administered to all groups.

Results: Both the fourth and fifth grades at the schools which use regular educational radio programs scored considerably higher than those at the nonradio schools but the differences did not reach the acceptable 5% level of significance.

TELEVISION

Abe, Kitao **Japan**

ANALYSIS OF THE EFFECTS OF TELEVISION AS A MASS COMMUNICATION MEDIA, February 1960.
Toyo University, Tokyo. Abe, Kitao, Assistant Professor of Tokyo University of Foreign Languages, Tokyo, Japan.

Purpose: To compare the amount of learning with small-group incidental viewing of educational television and small-group face-to-face lecture.

Procedure: Fifty-six college students who had similar backgrounds with reference to previous course work in psychology were randomly selected for this experiment which had no relationship to any course at the university. The students were asked to report to a particular classroom without knowledge of the purpose. The group was divided into three equal sections. Group A was taken to a small room where they viewed a 30-minute television program telecast over the university's closed-circuit television system. The program was actually a kinescope of an educational television program in elementary psychology concerning the mind, previously presented over NHK, the national educational television network. The students were given no instructions but sat in a room where the television set was turned on to this program. Group B, during the same period, listened to a 30-minute lecture given by the Professor of Psychology who prepared his lecture from the kinescope shown to Group A. Group C, the control group, had no instruction and was used to determine if learning took place with the experimental groups. An objective examination designed to test the kinescope content was administered to all three groups.

Results: Both the lecture and television groups scored significantly higher than the control group. Thus it was concluded that learning, as measured by this examination, did take place with each method. In comparing the television group with the lecture group, the lecture group did better than the television group at the 5% level of significance. The investigator listed the following possible reasons for these results: (1) students of the television group were given no instructions concerning viewing and, as a consequence, watched the program for entertainment purposes, reducing the amount of learning that should have been gained from the educational television program; and (2) students in the lecture group reacted immediately to the face-to-face lecture as a learning situation since they were quite accustomed to this procedure and, accordingly, were much better prepared for an examination on the material even though they did not know that a test would follow this out-of-class activity.

International Christian University Japan
Audio-Visual Center

THE EFFECTS OF "TELEVISION ENGLISH CLASSROOM FOR THE SEVENTH GRADE," September 1960-March 1961 (two semesters). Andio-Visual Center, International Christian University, Tokyo, Japan.

Purpose: To measure the learning effects of an educational television series in the teaching of English with a native speaker, and to determine the progressive levels of motivation through the semantic differential method.

Procedure: One hundred eighty seventh-grade students from two junior high schools were randomly divided into one control and one experimental group at each school. NHK's "Television English Classroom for the Seventh Grade," with a native speaker of English as the teacher, was viewed once each week for 20 minutes during the two semesters by the experimental group only. There was no introduction but a 10-minute follow-up included a question-and-answer period. The control group did not use the television series. One teacher at each school taught both the control and experimental groups. An examination including an oral test with tape recorder, a written test, and a measurement of motivation and attitude by the semantic differential method, was administered as a pretest and after the first and second semesters.

Results: There were no significant differences between the control and experimental groups in each of the three sections of the examination at any of the three test periods. It was concluded that one 20-minute viewing per week of this television series was insufficient. The experimentors recommended shorter daily viewing periods rather than one longer period each week. A two-year study is now under way by the investigators to measure the long-term viewing effects of Television English Classroom.

Japanese Committee on Television Project for Working Youth in Japan — Japan

TELEVISION PROJECT FOR YOUTH IN JAPAN, November 1959-October 1960. UNESCO, the Japan Broadcasting Corporation (NHK), and the Ministry of Education, Tokyo, Japan.

Purpose: To measure and evaluate the educational effects which the social education programs of television, prepared and telecast largely for the promotion of international understanding and human rights, will bring about upon the working youth in Japan.

Procedure: Compulsory education in Japan extends through the ninth grade. After that year many Japanese youth begin working. In order to further the education and training of these students, the Japanese Government has encouraged local governments to support Youth Classes as an educational program of the city, town, or village. As a result there are thousands of Youth Classes throughout the country offering secondary school courses, vocational courses, sewing, cooking, etc. In late 1959 30 rural Youth Classes were matched with 30 urban Youth Classes for this experiment. The majority of the members were between the ages of 19 and 22. NHK prepared a series of 13 half-hour television programs entitled "The March of Youth." The series was designed to deepen the understanding of fundamental human rights among working youth, and to give some practical suggestions for overcoming various obstacles affecting human rights and fundamental freedom. The goal was to foster the spirit of cooperation in the cause of world peace and the welfare of mankind by increasing international understanding. Half of the classes from each of the rural and urban groups, with an average of 30 students per class, watched this series of television programs under the supervision of a local leader who underwent several short training periods for the experiment. A discussion followed the weekly program. The control groups did not see the programs and experienced no treatment. Before and after the three-month experiment a survey was conducted with all the Youth Class members to determine attitude change by the semantic differential method and the questionnaire method.

Results: After the three-month period the control classes showed little change in their attitude. The experimental classes during the same period showed a significant change of attitude in the desirable direction on the questionnaire survey. Thus it was concluded that these special television programs had a marked positive influence on the Youth Classes of Japan.

A SURVEY OF INFLUENCES OF TELEVISION AND FILM ON THAI CHILDREN, 1961. Division of Educational Information, Ministry of Education, Bangkok, Thailand.

Purpose: To gather information concerning the influence of film and television in the lives of Thai children.

Procedure: A questionnaire was designed by the Ministry of Education to survey children's program preferences, hours of viewing, parental attitude, and children's behavior. Five thousand questionnaires were sent out; 603 were returned. The majority of the respondents are civil servants and teachers from the middle class, mainly from the Bangkok area.

Results: There is no doubt that film and television are an important source of recreation to children from Thai middle-class homes since almost all age groups from 5 to 21 see films on the average of five times a month. Children aged 9 years and under view television for at least one hour every night; children from 10 to 17view at least two hours a night; and those between 18 and 21 view on the average of three hours a night. Practically all of them watch television until their bedtime. Parents notice that children between the ages of 6 and 13 try to identify themselves with and imitate the leading actors and actresses which they have seen on the screen. Children from 2 to 9 like cartoons best, and those from 10 to 13 like cartoons and cowboy programs best. Some evidence indicated that students from 14 to 17 preferred thrillers and sentimental programs over news and documentaries which are usually considered of great educational value. In the age group of 18 to 21 it was reported that they preferred news, documentaries, and historical films and television programs. Parents' values and preferences showed that these middle-class families approved of historical films and documentaries and disapproved of the cowboy shows. A third to half of the parents complained that their children from 6 to 17 tended to ignore their studies on account of films and television programs. Nearly a quarter of the parents felt that addiction to films and television programs in the 14 to 17 age bracket created unrest and precocious identification with adults. The investigators concluded that excessive viewing of films and television must be reduced and that perhaps educators need to advise parents regarding the amount of time they should allow children to spend viewing films and television.

Miwa, Kazutoshi Japan

AN ANALYSIS OF EDUCATIONAL TELEVISION PROGRAM CONTENT, March, 1960. Miwa, Kazutoshi, Assistant Professor of Education, Kobe University, Kobe, Japan.

Purpose: To compare the program teaching methods used by the two educational television networks.

Procedure: There are two educational television networks in Japan: the NHK network financed by fees levied on set owners; and NET, the commercial education network financed by advertisements. The investigator viewed a series of 21 sixth-grade science programs telecast by each of the two stations on different topics but running concurrently. A list of methods and materials was devised including charts, blackboard, pictures, slides, models, demonstrations, straight lecture, etc. For the 42 programs a strict account was kept of the time used with each method. From this record the average amount of time devoted to each method per daily program was used as the basis for comparison.

Results: There was only one substantial difference between the public and commercial educational television

3

programs. NHK devoted substantially more time per program to the lecture or verbal presentation similar to the traditional classroom method. Consequently, the production techniques were smoother with few errors, prolonged pauses, etc. The commercial network's educational series involved more participants and consequently had more production errors and difficulties. No attempt was made to compare the effectiveness of the programs.

NHK Radio-Television Cultural Research Institute Japan

A STUDY OF KINDERGARTEN CHILDREN'S INTEREST IN TELEVISION PROGRAMS, October 1959. Hisamatsu Kindergarten, Chuo District, Tokyo. NHK Radio-Television Cultural Research Institute, Tokyo, Japan.

Purpose: To compare the overt interest patterns of kindergarten children while viewing two types of television programs.

Procedure: The NHK Research Institute has been utilizing a Reaction Recording Machine which is operated by a trained person who observes children's overt activities while watching a television program and records the degree of activity on the machine. The observer is unobtrusively stationed so that he can scrutinize the child's attentiveness to the screen. In this manner a general indication of the child's interest is recorded. For this experiment 28 kindergarten children five and six years' old were shown two 15-minute kindergarten television programs from NHK on separate days. The first program was a live program of a local zoo showing some of the features of the zoo. The second program was a puppet show dramatizing a legend. The interest levels, as indicated by the students' attentiveness toward the screen, were compared.

Results: There was a substantial difference in the children's interest as determined by this method. The kindergarten children showed a much greater sustained interest in the puppet show than in the live program. The investigator attributed this to the fantasy nature of the puppet program. Television programs of real things and events, as distinct from fantasy programs, did not maintain the interest of kindergarten children for the 15-minute program.

NHK Radio-Television Cultural Research Institute Japan

A SURVEY OF SCHOOL OWNERSHIP AND USE OF EDUCATIONAL TELEVISION, June 1961. NHK Radio-Television Cultural Research Institute, Tokyo, Japan.

Purpose: To determine the percentage of schools which have television sets and the number of schools which use them for classroom educational purposes.

Procedure: The NHK Cultural Research Institute conducted a series of surveys over a five-year period through an intricate random-sampling procedure. In 1958, 10% of the schools owned television sets. In the Summer of 1961, this latest survey was completed.

Results: Percentage of schools owning television sets:

Kindergarten	55%
Elementary	75%
Jr. High School	62%
Sr. High School	57%

Percentage of the schools owning television sets which utilize them for daily classroom educational telecasting:

Kindergarten	80%
Elementary	69%

Jr. High School	36%
Sr. High School	8%

Even though a high percentage of schools own television sets, comparatively few high schools use them for classroom education. This is a result of the relatively small number of high school level programs available in 1961.

Ogawa, Tadashi Japan

LEARNING FROM EDUCATIONAL TELEVISION, October 1960. Three elementary schools, Nagano City. Ogawa, Tadashi, Institute for Educational Research, Nagano City, Japan.

Purpose: To measure the increase in learning from a regular educational television program.

Procedure: The experimentor selected an educational television program concerning the Tokyo-Yokohama industrial area originating from NHK. An extensive examination, divided into seven parts, was developed from the script of the television program made available byNHK. One hundred forty fifth-grade students from three schools undertook the examination as a pretest. The students then viewed the television program followed by the same examination administered immediately after the program. Thus the comparison was made between the results of the same examination used before and after the television viewing.

Results: The following average scores were recorded for the entire group:

Section	Pretest	Posttest
1	57.9	57.9
2	40.7	50.7
3	7.1	31.4

4	40.0	62.9
5	57.9	77.1
6	10.7	62.1
7	2.9	18.6

It was concluded that the students' knowledge of the Tokyo-Yokohama industrial area was greatly increased through the use of television.

Osaka Educational Research Institute **Japan**

A COMPARATIVE EXPERIMENT ON THE LEARNING EFFECTS OF AN HISTORICAL EDUCATIONAL TELEVISION PROGRAM, June-July 1959. Takikawa Elementary School, Osaka. Osaka Prefectural Educational Research Institute, Osaka, Japan.

Purpose: To compare the learning results of a history unit when taught over television with the identical content taught by the teacher without the use of television.

Procedure: One hundred fifth-grade students were divided into two classes for the study of Japanese history. NHK's educational television program, "Japanese History," was viewed by the experimental class for 20 minutes once each week for five weeks. There were no comments made by the teacher either before or after the weekly program. During the television lesson the regular history teacher took copious notes and listed scenes of historical treasures shown during the program. The next day this teacher lectured to the control group for 30 minutes covering the same material that was presented over television, supplemented by illustrations and pictures of the historical treasures. No other time was devoted to this particular unit on the Kamakura and the Muromachi Periods by either class during the experiment. A three-part examination was administered immediately after the last class consisting of: recognition of historical treasures projecting still pictures with the opaque projector; recall of historical dates; and multiple-choice cause-and-effect questions.

Results: In the comparison of the two classes as a whole, the experimental group was found to have better scores but not significantly. The investigator also compared the results of the upper 30% and lower 30% of the two groups based on their test scores. This showed that there were no significant differences between the better students but that the lower students in the television class scored dominantly better results than the identical group in the nontelevision class on the recognition section of the test only.

Ukawa, Katsumi Japan

THE EFFECTS OF SCIENCE TEACHING THROUGH TELEVISION, April-September 1960. Shiun Junior High School, Takamatsu City, and Takuma Junior High School, Mitoyo District, Kagawa Prefecture. Ukawa, Katsumi, Assistant Professor of Education, Kagawa University, Takamatsu City, Japan.

Purpose: To determine the effects of a national television program in science.

Procedure: NHK televises one educational program per week entitled "TV Science Classroom" at the seventh-grade level. For this experiment 189 students at the seventh-grade level from two schools were divided into two similar groups within each school. For a period of 15 weeks the experimental group, which consisted of two classes in each school, was taught with four regular lessons per week by the teacher, supplemented by the one television lesson. During the same 15 weeks the control group was taught all lessons presented by the teacher without the use of television. Thus the comparison was made between the teacher supplemented by television and the teacher teaching without television. An extensive written objective examination was administered as a pretest, an immediate posttest, and six weeks after the experiment.

Results: Significant learning took place during the 15-week experiment with both groups. The experimental group; that is, the teacher supplemented by one television program per week, scored slightly higher results in both the posttests. Television as a once-a-week supplement in science proved little more effective than the methods of teaching regularly employed in these two typical schools.

UNESCO Japan

RURAL TELEVISION IN JAPAN: A REPORT ON AN EXPERIMENT IN ADULT EDUCATION, 1956-57. UNESCO Experimental Research on Group Reception of Television Programs in Rural Villages, UNESCO, Tokyo, Japan.

Purpose: To answer the following questions: is television useful for the promotion of culture and education among the general masses; and is the teleclub an effective and adequate means of social education for farm villages.

Procedure: In 1956 a committee of representatives from the Japanese National Commission for UNESCO, the Ministry of Education, and the Japan Broadcasting Corporation (NHK) was formed to conduct the experiment. Sixty-four villages located within 50 kilometers of a city were selected to represent rural areas throughout Japan. At the time of the experiment these villages did not have television sets. One television set per village was purchased as village equipment with one third of the cost coming from municipal funds, one third from contributions by each household, and one third from

UNESCO and the Japanese Government. A local person was selected to serve as the teleclub leader and attended a series of training meetings. With the installation of the sets in the community center, the local leader urged voluntary attendance for unsupervised viewing each evening. As attendance became regular, they formed a teleclub for group viewing of television. In January of 1957 NHK presented a series of thirteen 30-minute programs for the teleclub audience entitled "Farming Village in Progress." The programs emphasized newer agricultural techniques and modernization of rural communities through documentaries and dramas. As the series progressed, the local leaders began conducting informal postviewing discussions in an effort to relate the program's message to the local situation. There was an average attendance of 33 adult viewers per teleclub for this special weekly program. A survey of the attitudes of the villagers was conducted two months before the television series and shortly after the last program. In addition, each teleclub leader kept an account of his community's developments and progress during the experimental period.

Results: Individual villages reacted in different ways. Some cooperative programs were initiated such as developing a local water supply, while in others a sense of community spirit was developed with such things as punctuality and expression of personal views receiving much attention. However, it was concluded that the teleclub was capable of making people conscious of their real problems but, with the exception of a few cases, did not succeed in bringing about much action during this three-month period of the experiment.

Victorian School Broadcasts Advisory Committee — Australia

TELEVISION FOR SCHOOLS: REPORT ON EXPERIMENTAL MATHEMATICS PROGRAMMES, April 1961.

Victorian School Broadcasts Advisory Committee, Australia.

Purpose: To determine the effectiveness of teaching mathematics by direct television broadcasts in which a teacher in the studio teaches a new topic using techniques and aids which are special to television.

Procedure: Two thousand seven hundred Form II students (eighth grade) were originally selected from 40 schools to participate. However, for the final analysis, eight schools were considered 'clean' experimentally, so that the results from 468 students were actually analyzed. In each of the eight schools there was one television class and one regular class. The television classes viewed a series of six television programs concerning "Directed Number," "The Number System," and "Pi." The classroom teacher was asked to do no teaching. At about the same time as the viewing groups were being taught by television, a second teacher in each school was asked to teach the same topic to a control group. The students from both the television classes and the control classes were tested on the topics immediately after the last program and the scores were compared.

Results: The results of the experiment showed that the television teacher achieved results comparable with the best achieved by control group teachers, and much better than the worst of those achieved by the control group teachers. The experimentors concluded that a good teacher on television can achieve results which are comparable with those of the good teacher in the classroom and which are better than those achieved by a weak teacher in the classroom. It would seem, therefore, that while nothing can replace a good classroom teacher with his personal contact with his pupils, television could play a part when there is a shortage of good teachers in subject areas such as mathematics.

Cirulis, I. Australia

INVESTIGATION INTO PROBLEMS OF THE DEAF IN UTILIZING AUDIO-VISUAL MATERIALS, July 1961. Cirulis, I., Research Officer, Department of Audio-Visual Aids, University of Melbourne, Melbourne, Australia.

Purpose: To establish the specific kinds of speech-reading difficulties encountered by deaf and dumb individuals in each of the three media of television, ordinary film-screen (i.e., two-dimensional), and three-dimensional film, and to evaluate the relative advantages of each of these media with regard to speech-reading.

Procedure: Twenty-two individuals with markedly impaired hearing who were at least average speech-readers were selected, ranging in age from 18 to 50 years. The film, especially made for this experiment, was subdivided into four sections. Two of the sections were shown as three-dimensional films, one as an ordinary film-screen presentation, and the other over a television system. The experimental design consisted of two main parts: film sessions with sound omitted (three groups of subjects of varying levels of speech-reading efficiency were shown three sections of the film in each group); and film sessions with sound included. A questionnaire was administered during the intervals consisting of recognition and recall questions concerning film content. At the end of the viewing sessions, the subjects were asked to rank the three media with respect to the ease or difficulty of speech-reading encountered.

Results: The two-dimensional screen medium was preferred to the other two media and resulted in a better performance by a large majority of the subjects in both parts of the experiment. The three-dimensional presentation rated slightly higher than the television presentation. The performance of the subjects on the film questionnaire showed a marked difference of performance levels, apparently due more to the difference in the individual ranges of vocabulary than to the differences in film comprehension or speech-reading efficiency. Responses of subjects who were born deaf showed a much poorer level of performance. A superior level of performance on the questionnaire by the subjects in Part II of the experiment suggested that the inclusion of sound offers additional clues that facilitate speech-reading. The investigator concluded that if special programs of screen media are to be considered for deaf and dumb audiences, the following recommendations, among others, should be considered: themes should be presented through a simple vocabulary with short sentences; shorter programs are preferable as motivation lags during long programs; plan for the needs of two distinct audiences (those who developed a vocabulary before deafness and those born deaf); two-dimensional film-screen is more favorably received; and, sound should be included.

College of Education Thailand

THE USE OF MOTION PICTURES AT THE COLLEGE LEVEL. Educational Research Department, College of Education, Bangkok, Thailand.

Purpose: Nearly all motion picture films used at the college level in Thailand are in English which has greatly reduced their effectiveness in teaching. Therefore, this experiment was designed to compare three methods of using foreign films for education at the post-high school level.

Procedure: Three hundred twelve college students from the freshman, sophomore, junior, and senior classes of the College of Education were selected. A 20-minute film was selected with an English soundtrack and a version translated into Thai. The students were randomly divided into three groups and experienced the following procedures: Group A saw the film with an English soundtrack; Group B saw the film with Thai soundtrack; Group C saw the film with the English soundtrack and an introduction consisting of a summary of the film presented in Thai. A test on the content of the film was administered immediately after the showing.

Results: Group B who saw the film with the Thai soundtrack scored significantly better than the other two groups. Group C with the English soundtrack and summarized introduction scored significantly better than the group with just the English soundtrack. It was concluded that the best method was obviously to procure films in Thai. However, since the costs of preparing films in the Thai language are prohibitively high, the best way to solve the problem of using films in English at the university level is to provide the students with a summary, in the Thai language, of the film content before presenting it.

Commonwealth Office of Education Australia

THE EFFECTIVE USE OF SOUND FILMS, 1950.
Four junior technical schools, Sydney; Commonwealth Office of Education, Sydney, Australia.

Purpose: To determine whether the method used in presenting a sound film to secondary students affects the number of facts learned from the film.

Procedure: Six sound films in social studies were presented to each of six matched school classes by one investigator, using six different methods of presentation. The following methods were used in the film utilization:

A--film introduction, screening, test;
B--film introduction, screening, 10-minute discussion, test;

C--film introduction, screening, second screening, test;
D--film introduction, screening, discussion, second screening 24 hours later, test;
E--film introduction, screening, second screening 24 hours later, discussion, test;
F--film introduction, screening, discussion, second screening 24 hours later, discussion similar to the first discussion, test.

An experienced teacher of social studies, skilled in the use of sound films, conducted the experiment to ensure that the introductions and discussions would be as uniform as possible. Each of the films was in the field of social studies. To assess the effects of the six methods, each of the six classes was given the same test on each film immediately after the film lesson and after a period of some weeks. The scores obtained on the last testing were used to compare the effectiveness of each method.

Results: Of the six methods used, Method D was the most effective. With that procedure more facts were retained than with any other method. The classroom utilization method used in presenting an educational film did affect the amount of learning students gained from this medium.

Ishikawa, Katsuya Japan

A STUDY OF TEACHING METHODS WITH EDUCATIONAL FILMS, September 1959. Three elementary schools in Gunma Prefecture. Ishikawa, Katsuya, Gunma Prefectural Educational Research Institute, Maebashi City, Japan.

Purpose: To compare two methods of educational film utilization.

Procedure: Two hundred ninety fourth-grade students were randomly divided into two groups in each of three schools. Two 12-minute films in social studies were selected. Group A experienced an introduction to Film I in which the teacher, after previewing the film, listed a series of important and relevant points to look for in the film. Following the screening, an objective examination on Film I content was administered. The next day Group A saw Film II with an introduction consisting of a problem-solving period in which similar issues in the film were presented in problem form. Immediately after this film presentation an objective examination on Film II content was administered to Group A. Group B saw the same two films but the two forms of introduction were reversed so that Group B saw Film I with a problem-solving introduction and Film II with a list of important points to look for. Group B was administered the test on each film immediately after viewing.

Results: Group A scored considerably higher results than Group B on Film II test, favoring the problem-solving introduction. Group B scored considerably higher than Group A on Film I test, again favoring the problem-solving method. As a result, the problem-solving introduction to an educational film was considered most effective in this experiment.

Ishikawa, Keiji Japan

A STUDY OF THE EFFECTS OF AUDIO-VISUAL MATERIALS IN REMOTE AREAS, October-November 1959. Iwate Prefecture. Ishikawa, Keiji, Instructor of Education, Iwate University, Morioka City, Japan.

Purpose: The problem of education in remote areas of Japan is a significant one because of the mountainous terrain and the many islands which isolate certain school districts. With a centralized system of education and the increasing flow of people to the cities, audio-visual materials are also of necessity increasingly being aimed at the urban school audience. Since the system of educational radio and television is a nationwide network, the problem of determining grade-level applicability of programs is further complicated. Therefore, to compare the ability of children from an isolated school with children from a city school in learning from films, and to determine the rural children's ability to learn from a national educational radio program, this experiment was undertaken.

Procedure: Students of an isolated elementary and junior high school, located in the mountainous area of northern Honshu, known as the "Tibet of Japan," were selected to compare with students of an elementary and junior high school in a city of 50,000 people located in the same prefecture. There were no motion picture theaters or television sets in this remote area, and rarely did the children have an opportunity to see either medium. One hundred five students from the first to the ninth grades in a six-teacher remote school were selected. Approximately the same number of students with an equal grade-level representation were randomly selected from a city elementary and junior high school. In the first part of the experiment all students in both areas were shown three films including an animated version of a fairy tale, a science film, and a social studies film. After each film a separate objective examination was administered to test the amount of information and understanding gained from that particular film. The results were then compared. In the second part of the experiment an NHK educational radio program on current events designed for the third- and fourth-grade levels throughout Japan was presented to the rural children by tape recorder, followed by a test to determine the amount of learning gained from the radio program. The city students were not used in this part of the experiment.

Results: The first comparison showed that the rural students scored two grades lower in learning from the animated film than the city students. In both the science and social studies films, the rural students averaged four grade levels behind the city students. In other words, the seventh-grade children from the remote schools scored the same as the third graders from the city. In the second part of the experiment it was found that children below the seventh-grade level in this remote area could not learn well from the educational radio program designed for a third- and fourth-grade audience at the national level. It was concluded that there are vast differences between the ability of rural and city students to learn from audio-visual materials.

Matsumoto, Masatatsu Japan

AN EVALUATION OF AUDIO VISUAL MATERIALS.
Hisamatsu and Nissin Elementary Schools, Tottori City.
Matsumoto, Masatatsu, Assistant Professor of Education, Tottori University, Tottori City, Japan.

Purpose: To compare the effects of audio-visual methods with an audio method of teaching.

Procedure: Ninety sixth-grade students were randomly divided into three groups. Group A was presented a film entitled "The Judicial Process," designed to teach understanding of the courtroom method of arriving at a verdict. Group B was taught the same lesson with 50 slides made directly from selected frames of this film. A tape-recorded commentary adapted from the film narration accompanied the slide presentation. The third group listened to a tape-recorded dramatized version of the film prepared by the experimentor. The comparison was then made between the three methods, two audio-visual and one audio, by administering an objective examination to all the students.

Results: The film group performed better than the other two groups, and significantly better than the drama group at the 5% level. The drama group scored lower than the other groups in every comparison. In this experiment the audio-visual methods were more effective than the audio method.

National Institute of Audio-Visual Education India

EFFECTIVENESS OF FILMS IN TEACHING, February 1961. National Institute of Audio-Visual Education, New Delhi, India.

Purpose: To determine the effectiveness of teaching geography with daily use of films to supplement the classroom teacher.

Procedure: Two eighth-grade geography classes from one school in New Delhi were selected for this experiment. Twenty-seven students were included in each of the two classes. A pretest showed that the groups were of comparable ability. A unit on "National Climatic Regions of the World," which extended over a 24-day period, was chosen for the study. During the 24-day experimental period one geography film per day was shown to the experimental section to supplement the classroom teaching. The other section was taught the same topic under similar teaching conditions but without the help of films. A subject matter test was administered to both groups at the end of the experiment and two weeks later.

Results: On both the immediate-after test and the delayed posttest, the experimental group scored higher results than the control group at the 5% level of significance. Thus it was concluded that the use of films in this experiment resulted in a significant increase in learning, and that the group taught with films had greater retention power than the group taught without films.

Osaka, Ryoji **Japan**

A COMPARATIVE STUDY OF THE EFFECTS OF FILM AND TAPE RECORDING. An elementary and junior high school, Kyoto. Osaka, Ryoji, Assistant Professor of Education, and others, Kyoto University, Kyoto, Japan.

Purpose: To compare learning from a film with learning from a tape recording adapted from the film.

Procedure: Two hundred students at each of the third-, sixth-, and eighth-grade levels were randomly divided into two groups at each level. Group A, consisting of 100 students in each of the grades, viewed a film entitled "You and I" in Japanese, borrowed from the United States Information Service which provides many films for classroom use in Japan. This film can be considered as a sample of those frequently selected from the USIS film library. Group B did not see the film but listened to a tape-recording presentation of a lesson which was adapted from the script of the film. An examination designed to test learning of the film content was administered to all 600 students.

Results: There were no significant differences between the film group and the tape-recording group at each level. There were vast differences, however, between the grade levels demonstrating the older students' greater ability to understand the material presented in either form. Further research must be undertaken to determine the significance of this study which demonstrated that a verbal presentation of a film's content with a tape recording was just as effective as the film itself at three grade levels when measured by a written examination.

Royal Australian Air Force **Australia**

THE FILM AS A TEACHER OF ELECTRICITY, 1960.

Wilson, N. L., Flight Lieutenant, Royal Australian Air Force, Melbourne, Australia.

Purpose: To determine the effectiveness of teaching knowledge of basic electricity to military personnel through the medium of film.

Procedure: All engineering trainees of the Royal Australian Air Force are required to complete a course in basic electricity which utilizes 55 instructional periods. For this experiment 42 of the regular trainees were selected. Fifteen half-hour films from the Encyclopedia Britannica Film Series, "College Physics," by Professor White, were used which dealt with electricity and magnetism and covered more material than is usually presented in this course. The trainees were given a set of student notes and student projects. No briefing was given prior to the films. After each film trainees worked in groups, discussed their notes, completed exercises as directed in the film, and began student projects, all during the first period. During the second period of a two-hour block, the projects were completed. Thirty-five periods were thus used to complete the course with one film every other period. In general, nearly all of the teaching was done by film, group discussion, and project exercises. A test similar to the ones previously used was administered to these students immediately after the unit and a comparison with previous test scores was made.

Results: Previous tests showed a failure rate on the course of about 15%, and means on the tests of 60%. In this experiment the failure rate was about the same as experienced previously, but the means were raised to 65%. The important element in this study was that slightly better results were obtained with film teaching in 35 periods than were obtained previously in 55 periods with regular teaching methods. With military specialist training this is of great importance. The author has concluded that through the use of well-planned films supplemented with group work, more basic electrical knowledge was taught in less time to a higher attainment level with the filmed courses.

Tanaka, Shogo **Japan**

THE EFFECTS OF AN EDUCATIONAL FILM IN TEACHING GEOMETRY, MARCH 1960. Harima Senior High School, Himeji, Hyogo. Tanaka, Shogo, Assistant Professor of Psychology, Osaka University, Osaka, Japan.

Purpose: To compare the effects of a geometry film when used under varying conditions with the traditional manner of teaching geometry with textbooks.

Procedure: One hundred fifty tenth-grade geometry students were randomly divided into three classes to study a unit on the concept of "Locus." The unit included five segments on "Locus" to be taught one each day for five consecutive periods. One 18-minute film was produced by the investigator covering all of the five segments in the unit. Group A studied the unit with the textbook only, supplemented by explanations from the teacher. Group B was taught in the same manner but in addition saw the complete film two times consecutively during the last period. Group C used no textbooks with the teacher lecturing each day on a segment of the unit followed by the portion of the film concerning that particular segment only. During the last period Group C was also presented the entire film two times consecutively. The tests were administered immediately after the experiment and two months later.

Results: On the first posttest Group B and Group C scored higher than the students using the textbook only. The differences were not significant. On the delayed posttest, Groups B and C again scored higher results than A. Significance of difference at the 5% level was determined in favor of Group C, the class which used the short daily film segments, over Group A, the class taught without the use of film. Group C also scored better than Group B but not significantly.

SLIDES

Matsumoto, Masatatsu **Japan**

A STUDY OF THE LEARNING EFFECTS OF AUDIO-VISUAL METHODS - LEARNING THROUGH SLIDES, July-September 1954. Shuritsu Elementary School, Tottori City. Matsumoto, Masatatsu, Assistant Professor of Education, Tottori University, Tottori City, Japan.

Purpose: To determine the effectiveness of teaching with slides.

Procedure: Thirty-six fourth-grade students were randomly selected from the entire fourth grade to participate in an experimental lesson in which an ancient story was taught in connection with the Japanese language course. Group A of 18 students was taught by the following method: introductory explanation of the theme, projection of 19 slides with running commentary, and follow-up consisting of a summary and question-and-answer period. Group B of 18 students was taught by the teacher through a verbal presentation including the same introductory theme presented to Group A, a story-telling period adapted from the slide commentary, and a follow-up summary similar to the one used with Group A. An objective test, including multiple-choice items and arrangement of occurrences according to their proper story sequence, was administered immediately after the presentation and 40 days later.

Results: On the immediate recall test the slide group scored an average of 2.2 points higher out of 100 than the verbal method which was not significant. However, 40 days later the slide group, on the same test, scored an average 11.8 points higher than the other group, significant at the 5% level.

Ohishi, Jungo Japan

A STUDY OF THE LEARNING EFFECTS THROUGH AUDIO-VISUAL METHODS. An elementary school, Tottori City. Ohishi, Jungo, Instructor of Education, Tottori University, Tottori City, Japan.

Purpose: To compare the effects of learning through radio dramatization, verbal presentation via tape recording, and slides with tape-recording accompaniment.

Procedure: One hundred twenty students from each of the third and sixth grades were randomly divided into three groups for a lesson centering around a legend used in all Japanese elementary schools. Group A was presented the lesson through means of a dramatized adaptation of the story by the local NHK radio station. Group B was presented the same story through the use of a series of 20 slides accompanied by a verbal commentary of the story adapted for the slides. Group C was taught by a verbal presentation on tape using a script adapted from the other commentaries. Each of the six groups at both grade levels, which consisted of 40 students per group, was further divided into two equal subgroups. An objective test, adjusted for each of the two grade levels, was administered to the six Subgroups I immediately after the experiment and the same test was administered to the six Subgroups II one month after the experiment.

Results: In nearly all cases at both grade levels the method using slides accompanied by tape recordings was the most effective of the three, and significantly so in many cases. It was pointed out that the verbal commentary alone produced results consistently lower than the other two methods.

Tanaka, Katsunori **Japan**

A STUDY OF THE LEARNING EFFECTS OF AUDIO-VISUAL METHODS, November 1958. Three elementary schools, Fukuoka Prefecture. Tanaka, Katsunori, Assistant Professor of Education, Fukuoka College of Education, Fukuoka, Japan.

Purpose: To study student reaction to projected slides showing scenes for which the students are directly responsible as compared with student reaction to scenes for which other students are responsible.

Procedure: Four hundred third-grade students from three different schools were randomly divided into three equal groups--A, B, and C--within each of the three schools. The experimentors, after school hours and without student knowledge, individually inspected the physical arrangement of the contents of all of the classroom desks of the 400 students. Each desk was evaluated according to A--excellent, B--good, C--fair, D--poor, and E--unsatisfactory. At the time of the first evaluation individual pictures of the desks of Group A only were taken. After this initial preparation all of the groups were taught a lesson in the moral education course concerning classroom tidiness, emphasizing the need for neat desk arrangements. Group A was shown the slides of their own desks with the teacher commenting on the appearance of each one, pointing out the poor ones and commending the good ones. Group B was also shown the same set of slides of the desks of Group A with a similar commentary. Group C had a verbal lesson on room cleanliness with an emphasis on desk arrangements but no slides were used. The day after the lessons the experimentors evaluated all the desks after school hours using the same criteria as that used in the pre-evaluation. This evaluation was also made once each week for three consecutive weeks following the experiment.

Results: In a comparison of the rate of improvement, beginning with the pre-evaluation as a basis, Group A which was taught with pictures, in the form of slides, of their own desks, showed a substantial improvement over Group B which was taught with pictures of the desks of Group A. Group C, taught by the verbal method only, scored substantially lower than the other two groups. For the three weeks of this experiment the rate of difference remained constant. Apparently children at this age level react more significantly to pictures showing scenes for which they are individually responsible.

Uruno, Fujio Japan

READING WITH SLIDES, September 1958. An elementary and junior high school, Tokyo, Uruno, Fujio, Assistant Professor of Psychology, Tokyo Institute of Technology, Tokyo, Japan.

Purpose: To compare the emotional effects and learning results of reading a story introduced with an accompanying set of slides, with reading a story followed by the slides.

Procedure: Eighty students from the fifth and eighth grades were randomly selected. The 40 students at each grade level were further divided into two groups. Group A at both grade levels was presented a series of commercial slides made to accompany a famous Japanese novel in short-story form for junior high school students. Following the slide period the students read the novel. A second novel at the elementary level was presented in the same manner with slides followed by the story. Group

B at both grade levels read each story first and saw the slides afterward. The slide sessions and book-reading sessions were conducted in a similar manner for all groups. Four types of measurements were used: the galvanic skin response, the program analyzer (each student presses a button to indicate his interest), written examination of the stories, and written responses to show which parts were liked best.

Results: the slide period provided a much higher degree of emotional experience than the reading period at both grade levels, as recorded by the galvanic skin response method and verified by the program analyzer. The written tests showed that better results were obtained when the reading period preceded the accompanying slides for the junior high students with both novels. However, it was more effective to present the slides before reading the novels with the elementary children.

TAPE RECORDING

Kuniyuki, Noriko Japan

AN ANALYSIS OF THE LEARNING EFFECTS OF THE USE OF MAGNETIC TAPE RECORDINGS FOR ENGLISH TEACHING, April-July 1959. Hachioji Junior High School, Tokyo. Kuniyuki, Noriko, Graduate Student, International Christian University, Tokyo, Japan.

Purpose: To measure the learning effects of the use of tape recordings in which the content of the regular textbook in the English course of the junior high school is recorded by a native speaker.

Procedure: Six eighth-grade classes were randomly divided into three experimental classes with 153 students and three control classes with 143 students. One English teacher taught two experimental and two control groups, and the second English teacher taught one experimental and one control group. Tape recordings of 14 minutes in length were made by an American Professor of English from the regular English textbook, "Standard Jack and Betty II," used in 80% of Japanese junior high schools. The recordings included words, phrases, and sentences. The experimental group used the recordings three periods per week throughout the semester. During the periods in which tape recordings were used, the teacher played three-minute segments of the recordings followed by an explanation and practice. This procedure was continued for the entire period. The control groups were taught with textbooks in the usual manner. An objective "Revised Test for Standard English Attainment" was administered as a before-and-after test.

Results: There were no significant differences between the progress made by the control and experimental groups. Under the conditions of this experiment, tape recordings taken from material designed for textbooks were not more effective than the textbooks alone. Apparently material for tape recordings must be prepared especially for that medium based on the inherent characteristics of the tape recorder.

KAMISHIBAI

Okishima, Atsushi Japan

A STUDY OF AUDIO-VISUAL MATERIALS, November 1956. A kindergarten and elementary school, Tokushima City. Okishima, Atsushi, Student, Tokushima University, Tokushima City, Japan.

Purpose: To study the effects of two visual materials.

Procedure: One hundred forty kindergarten children and 90 first graders were divided into three groups at both levels. The first group was taught a lesson in moral education with a commercial series of projected slides with teacher commentary. The second group was taught with the kamishibai (paper theater) and the same teacher commentary. The kamishibai is an ancient method for storytelling in which a series of colored pictures about 12 x 20 inches are presented one at a time on a stagelike frame. In this case each scene was carefully copied from the slides by hand. The third group listened to the same story as told by the teacher without pictures. Immediately after, an interviewer met with each child and asked them a series of questions based on the story content. A standard evaluation procedure was used so that a comparison could be made.

Results: Both the elementary and kindergarten children who were taught with slides learned more than the other groups. It was considered that learning may have been increased with the slide group because of the larger image on the screen and the darkened room which helped focus attention on the screen while the teacher gave an accompanying explanation.

STILL PICTURES

Horiuchi, Hideo **Japan**

THE EFFECTS OF EDUCATIONAL MEDIA ON RETENTION. Horiuchi, Hideo, Graduate Student, Kyoto University, Kyoto, Japan.

Purpose; To compare the retention effects between written symbols and pictures.

Procedure: Five hundred twelve students from the second, fifth, and seventh grades were randomly divided into two groups within each grade level. The first group was presented a series of 16 flash cards with Japanese words written on them. The words included everyday objects such as glasses, chair, and coat. The teacher held each card in front of the class for two seconds with a five-second interval between cards, covering a total period of two minutes. The students were not allowed to write the words. The second group saw a picture of each object without its verbal or written symbol for the same length of time and interval. For the comparison both groups at the three grade levels were further divided into two subgroups, one of which was asked to recall the objects they saw by writing down as many as they could remember, and the other subgroup was to select the correct ones from a long list of possible answers. The analysis was then made between recall and recognition of written symbols with pictures at the three grade levels.

Results: At each grade level, in both recall and recognition, the picture groups scored higher than the visual symbol groups. The experimentor pointed out that the significant result is seen in the fact that the difference between the two groups was greater at the earlier grade levels and decreased with the increase in age. Therefore it was concluded that the visual method in teaching Japanese vocabulary is more important in the early grades.

International Christian University **Japan**
Audio-Visual Center

THE EFFECTS OF THE LANGUAGE LABORATORY, March 1962. Audio-Visual Center, International Christian University, Tokyo, Japan.

Purpose: To determine the value of the language laboratory in teaching English to college students.

Procedure: The International Christian University offers courses in both English and Japanese. Consequently, all Japanese students must spend the entire first year in the intensive Freshman English course. In December 1959 a 50-booth language laboratory was installed and all freshman students devoted 3-1/2 hours per week for 36 weeks in the language laboratory. In 1962 the experimentors selected 110 senior students, who completed the Freshman English course in 1959 before the language laboratory was completed, as the control group. Seventy-six junior students who, as Freshmen in 1960, experienced the first year of language laboratory use at the University, were selected for the experimental group. A verbal test with native speakers and a reading and writing test were administered to all groups in March 1962 to compare the English ability of upper-class students who were taught without the language laboratory with students who took the same English course with daily sessions in the language laboratory.

Results: The initial analysis of the results has not been completed.

TEACHING MACHINES
AND PROGRAMMED INSTRUCTION

Ito, Kinji **Japan**

AN EXPERIMENTAL STUDY WITH PROGRAMMED INSTRUCTION IN GEOGRAPHY, July-September 1961. Komatsunagi Elementary School, Tokyo. Ito, Kinji, Teacher, Toyoko Gakuen, Tokyo, Japan.

Purpose: To determine the effects of teaching map symbols through programmed instructional methods.

Procedure: One hundred forty-one students from the sixth grade were randomly divided into three groups. Group A was taught a lesson on Japanese map symbols with a programmed pamphlet utilizing the graduated small-step method. The students worked at their individual speed. Group B was given the entire list of symbols to be memorized in 30 minutes. Group C was given the symbols in three stages and had to learn them in a 30-minute period, one by one in a specified order. A test to determine the number of symbols each student learned was administered to all students immediately after the experiment and 50 days later.

Results: On the immediate posttest Group B and C performed better than Group A. However, after 50 days, Group A produced results markedly higher than the other two groups.

Mogami, Tamon **Japan**

AUTOMATED PROGRAMMED INSTRUCTION IN FILM UTILIZATION, March 1961. An elementary school, Tokyo. Mogami, Tamon, National Institute of Educational Research, Tokyo, Japan.

Purpose: To compare two methods of applying the principles of automated programmed instruction to increase learning from instructional films.

Procedure: One hundred eighty fifth-grade students were randomly divided into two groups. Group A with 90 students was shown three instructional films in one 40-minute session in social studies on "Modern Industry in Japan." Immediately after, this group worked through programmed instruction in textbook form. The experimentor, following the principles of small-step programming advocated by Skinner, developed a series of questions designed to teach the film content. Each student read the question from the paper, wrote his answer, and turned the page to learn the correct answer, proceeding throughout the entire program in this manner. Group B with 90 students viewed the three films as did Group A. After the films this group followed a procedure in which the teacher, using the same questions from the programmed material presented to Group A, verbally asked the students as a class each question. Upon receiving the correct answer given verbally by a volunteer, the teacher continued to the next question completing the same program in this manner. An objective examination was administered to all students to test the amount of learning gained from the films.

Results: The two groups scored similar results on the examination. The experimentor attributed this in part to the fact that none of the students had ever experienced such a procedure before and were unaccustomed, particularly with the programmed written material, to answer a question and be immediately informed of the correct answer. Unfortunately, a control group was not used to determine if any form of programmed instruction on film content would be more effective than a film only.

Scott, Keith **New Zealand**

AN INVESTIGATION INTO AIDING THE TEACHING OF WORD RECOGNITION TO MENTALLY HANDICAPPED CHILDREN BY MEANS OF A TEACHING MACHINE, December 1961. Scott, Keith, Auckland University, New Zealand.

Purpose: To enquire into the effects of using discrimination cards, reinforced by tape-recorded voice and colour slides, to assist mentally handicapped children read simple words of social value.

Procedure: Fourteen children about 14 years of age in the 50-60 I. Q. range at Tamaki Intermediate School were divided into two groups. On a teaching machine designed by the experimentor, each member of the experimental group showed himself a series of words in pairs. Immediately after a word card appeared, one of the words appearing on it was repeated through a tape recorder and earphone. The child had to select the word he was hearing and push the button immediately above it. If correct, he was rewarded by seeing on a screen a colour slide illustrating the word. If incorrect, there was no reward and the card disappeared. The control group was taught to discriminate between the same pairs of words by conventional methods.

Results: The results are not yet final and further experimental work is going on. So far, the group using the machine has gained an average score of about 20 sight words as compared with a score of four or five for the control group.

Takeuchi, Yasuyuki **Japan**

AN EXPERIMENTAL STUDY WITH PROGRAMMED LEARNING IN ARITHMETIC, June 1961. Nakamaru

Elementary School, Tokyo. Takeuchi, Yasuyuki, Gakken, Tokyo, Japan.

Purpose: To determine the suitability of teaching below-average students with programmed materials.

Procedure: The lowest 50 students in arithmetic ability were selected from the entire second grade of a Tokyo elementary school. Each student completed programmed lessons on addition and the multiplication table. The program was duplicated on paper and followed Skinner's small-step principles of programming through book form. The programs were divided into nine developmental stages. No further supplemental mathematics teaching was given during this experiment. Following completion of the program, each student was administered a written test to determine the amount of learning gained from this method.

Results: In determining the percentage of correct answers for each frame or question, it was found that sections of three of the nine stages proved inadequate for these students when less than 90% of the class gave the right answer. Nevertheless, the high degree of success on the posttest indicated to the experimentor that programmed instruction can be employed successfully with students from the lower intelligence and achievement levels.

Yaguchi, Shin Japan

AN EXPERIMENTAL STUDY OF PROGRAMMED LEARNING, December 1961. Mitsukaido City, Ibaragi Prefecture. Yaguchi, Shin, National Institute for Educational Research, Tokyo.

Purpose: To develop principles and prototypes of programmed materials for Japanese education.

Procedure: Five subject areas and 265 students were selected for this experiment to include the Japanese language (50 sixth graders), arithmetic (100 fourth and sixth graders), social studies (50 fifth graders), science (50 fourth graders), and vocational education (15 junior high school students). In each subject two programs were developed to follow Skinner's small-step graduated principles of programming. The programs varied with size of step, method of question presentation, number and location of repetitive items, etc., in order to determine the most effective methods of programming. The groups within each grade level were randomly divided for the two experimental programs which incorporated the various approaches for comparison. The results of the different programs at each grade level were compared to determine which features of the programs were most effective, according to subject area and grade level, with respect to the number of correct responses, length of time to complete the program, and motivation levels.

Results: The results are not yet available.

Yamawaki, Akio **Japan**

AN INDIVIDUAL INSTRUCTIONAL METHOD WITH
A TEACHING MACHINE (Richo Syncrofax), July 1961.
Tamagawa Junior High School, Tokyo, Yamawaki, Akio,
Teacher, Tamagawa Junior High School, Tokyo, Japan.

Purpose: To supplement group instruction with a self-instructional method.

Procedure: The Syncrofax machine is a Japanese design which utilizes a sheet of paper with a magnetized backing for magnetic recording. A specially designed machine with magnetic recording and pick-up heads scans across the back of the magnetic sheet from right to left and top to bottom, functioning in a manner similar to the tape recorder in the recording and playback process. Pictures, print, etc., are placed on the front of the sheet to correspond with the verbal explanation recorded on the magnetized backing. For this experiment a junior high school course in mathematics with 120 students was selected. Each week for two months one or two periods were devoted exclusively to individualized work with the Synchrofax machines. The student pressed the control button and the teacher's voice explained a small portion of material while the student followed the accompanying written material, diagrams, etc., on the front of the sheet exposed on the face of the machine. Then he was instructed to answer question number one written on the front of the magnetized sheet or on a supplemental paper. After the question was answered he pressed the control button and the recorded voice gave the right answer. He either continued to the next small block of information with its question, or reviewed the teacher's explanation of the first one. A standard mathematics examination was administered at the end of each month.

Results: In comparing the monthly results of this group with the results of the same tests of the previous year when no experimenting was under way, the programmed instructional methods produced markedly higher results during every month. Levels of significance were not analyzed. In comparing the results of the same experimental groups for three months before the machine use with two months of machine use, there was an immediate and sustained increase of a substantial degree after the experiment began. The experimentor concluded that mathematics teaching can be much more effective when the regular group instruction is supplemented by individualized self-instructional methods such as the Synchroreader.

College of Education Thailand

EXPERIMENT ON THE CONTRIBUTIONS OF AUDIO-VISUAL MATERIALS IN THE TEACHING OF ARITHMETIC, 1959. Department of Educational Research, College of Education, Bangkok, Thailand.

Purpose: To determine the effects of using audio-visual materials in the teaching of arithmetic.

Procedure: Six thousand fourth-grade students from eight municipal schools in Bangkok were divided into two groups. All teachers of these students were given special training in the use of audio-visual materials. For a period of 12 weeks Group A was taught arithmetic lessons in which the teachers made use of as many inexpensive audio-visual materials as were available, according to the way they were taught by media specialists during the training periods. Group B was taught the same lesson content without the use of audio-visual materials. At the end of the 12-week experimental period, all students were given an extensive test on the arithmetic units taught during the experiment.

Results: It was found that using audio-visual materials in the teaching of arithmetic helped students learn the material better than teaching without them. The difference was significant. In a further analysis it was also found that the use of audio-visual materials was more beneficial for slow learners than for bright students.

Takahashi, Tsutomu Japan

AN EXPERIMENTAL STUDY ON AUDIO-VISUAL METHODS IN CONCEPT BUILDING, June-July 1959.

Three Junior High Schools, Tokyo and Ibaragi.
Takahashi, Tsutomu, Assistant, Faculty of Education,
Waseda University, Tokyo, Japan.

Purpose: To compare the use of film as the core of a lesson with film used as a follow-up.

Procedure: Two hundred thirty eighth-grade students were randomly divided into two groups for a lesson in science concerning sound waves. The first group in each of three schools was taught the essentials of this concept with two six-minute films, with an introduction and follow-up. Following the films the students saw an oscilloscope demonstration. A final review of the concept of the sound wave was presented with a series of slides. The emphasis with this group was centered on the film presentation. The second group was taught the same lesson with the main teaching emphasis placed upon the slide presentation with teacher explanation, followed by the oscilloscope demonstration. The two films served as a summary without explanation or follow-up. Five short examinations were administered to all students, one after each media presentation.

Results: It was found that the films, when used as the core of the teaching lesson, were more effective than when used as a summary. Thus the recommendation was made for the integrative use of educational films in the teaching process.

Ukawa, Katsumi Japan

A COMPARISON OF THREE AUDIO-VISUAL METHODS,
February-April 1954. Three elementary schools,
Takamatsu, Kagawa. Ukawa, Katsumi, Assistant
Professor of Education, Kagawa University, Takamatsu
City, Japan.

Purpose: To compare the effects of three audio-visual methods in immediate learning and delayed retention.

Procedure: Five hundred twenty fifth-grade students were randomly divided into four groups. Group A was taught a social studies lesson with an educational film on marketing. Group B was taught the same lesson with a series of commercial slides and slides copied directly from the film, accompanied by a tape-recorded edited version of the film soundtrack for the slide commentary. Group C had the same lesson material presented to them with a tape recording with a different edited and supplemented version of the film soundtrack so that it made a logical and coherent presentation without any visuals. Group D, the control group, took the examination only which was an objective test administered to all students immediately after the experiment and 50 days later.

Results: All three methods were significantly more effective than the control group at the 1% level on the immediate and delayed tests. Thus without direct teacher instruction, the three methods were effective. Of the three, the film group performed best on both tests. An important result was discovered when the nonvisual group failed to maintain the same rate of retention over a 50-day period as that of the visual groups. It was thus concluded that the visual methods produced a higher rate of retention than the auditory methods in this experiment.

Uota, Shoji Japan

GROUP LEARNING WITH AUDIO-VISUAL MATERIALS, October 1960. Junior High School, Kamakura, Kanagawa. Uota, Shoji, Teacher, Kamakura, Japan.

Purpose: To study the effects of teaching small groups with audio-visual materials.

Procedure: Four eighth-grade classes in English were given a series of pretests to determine the relative standing of each group. The two lowest classes were treated as the experimental section and the two highest classes as the control section for this experiment. Each of the two experimental classes was further divided into three small groups for classroom instruction. One group was taught primarily by visual methods such as flashcards; another primarily by aural methods such as tape recordings; and the third by a combination of the two. The control classes were taught in the same manner that English is usually taught in that school, with a teacher-centered emphasis. The report covered the first two months of the experiment during which a comprehensive oral and written examination was administered after the first and second months to all students.

Results: At the end of the first month the two experimental classes, which were the lowest of the four classes on the pretest, did not do as well as the control group. However, after the second month the experimental group scored substantially better than the control group. Levels of significance were not analyzed. A further comparison with high, medium, and low students, according to their pretest results, showed that the upper students in the experimental group did far better than similar students in the control group on both posttests. After two months of teaching small groups with audio-visual materials, the results were encouraging enough to warrant an extension of the experiment to determine if the gains by the experimental group can be continued.

Zafra, Fortunato O. Philippines

VISUAL AIDS IN TEACHING ARITHMETIC IN THE INTERMEDIATE GRADES, July 1950-April 1951. Zafra, Fortunato O., Cosmopolitan Colleges, Manila, Philippines.

Purpose: To determine the effects of visual aids in the teaching of arithmetic.

Procedure: Two fifth-grade and two sixth-grade classes were selected with a total of 148 pupils. One class at each grade level was the control group and the other the experimental group. In extensive pretesting the two groups were found to be similar in mathematics ability at the two grade levels. In the experimental classes all necessary visual aids such as objects, diagrams, graphs, charts, bulletin boards, field trips, and other devices were used whenever they contributed to a clear understanding of the situation. In the control classes, on the other hand, the regular formal or textbook method was employed. No visual materials were used. This procedure was followed for one school year. At the end of the year a final examination was administered to all students.

Results: There was a significant difference (1%) between the control and experimental groups in favor of the experimental group at both grade levels. The experimentor concluded that the use of visual materials produced significantly greater achievement in arithmetic in this experiment.

FIELD TRIPS Japan

Unlike school tours in most countries which are organized rather informally, academic travel in Japan is not only supervised by the boards of education but is specially authorized by law. The Ministry of Education directs that a trip shall be a feature of the last year of primary, middle, and high school. For six- and seven-year-olds the trip is limited to not more than 12 hours; for eight- to thirteen-year-olds the trip may be 72 hours' long; while high school students may be away for 96 hours.

As the country has prospered in recent years, many schools have increased the trips so that there are several instead of just one. Consequently the Ministry of Education has directed that excursions should be integrated into the school curriculum instead of being considered merely a vacation. In addition, a subsidy of $500, 000 is appropriated annually to subsidize students whose parents cannot afford such trips.

Governmental supervision comes not only from the Ministry of Education but also from the Ministry of Transportation through the Japan National Railroad and its subsidiary, the Japan Travel Bureau (JTB). Ten years ago JTB established the Japan School Tours Bureau, one of the most specialized agencies of its kind in Asia. From its headquarters in Tokyo and through six regional offices, the School Tours Bureau oversees the general level of student tours, sets standards for accommodations, and makes available speakers and films to schools planning trips.

An estimated 4, 600, 000 Japanese boys and girls toured their country in 1961 and the number is expected to top five million in 1962. Each day for seven months out of the year a 12-car special train carrying 1, 200 students departs Tokyo for a five-day tour of Kyoto, the ancient capital. At the same time two other 12-car specials leave Osaka and Nagoya for a tour of Tokyo, the present capital. These three daily trains are just a part of the gigantic student travel movement throughout the country. Under this emphasis probably more Japanese children have visited the cultural and historical areas of their country than has been possible for children in most other lands.

KAMISHIBAI Japan

One of the oldest teaching methods in Japan is the world-famous kamishibai, commonly known abroad as the paper theater. The kamishibai is simply a story-telling method with still pictures. Each picture is about 30 x 40 centimeters painted or printed on a card which is placed on a small stagelike frame. The storyteller unfolds the plot and changes the scene as the story progresses. Other than the title on the first card, there is usually no other writing on the pictures themselves, the narration being provided entirely by the storyteller.

This simple method of telling a story has been very popular in Japan for many years. Traditionally it was performed on the street corner and temple grounds where children came to play. Even today the player arrives with the kamishibai and a drum with which he attracts his audience. The children crowd around him while he narrates a story with pictures and background accompaniment with the drum, varying its intensity according to the emotional content of the story. The combination of picture, story, and rhythm has proved to be extremely popular with the younger children for many generations.

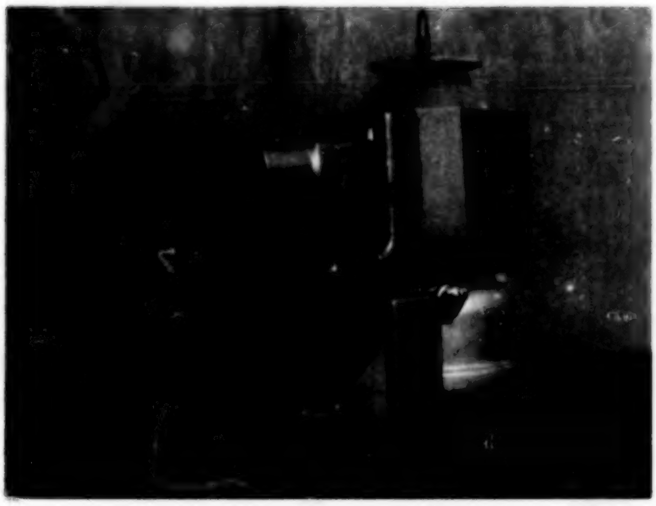
By 1933 there were 2, 500 players working on the streets of Tokyo. From that year the educational use of kamishibai began in the classrooms. In 1938 the Kamishibai Association was founded. During the war, kamishibai was used for propaganda purposes. Since 1957, the beginning of widespread television coverage, kamishibai has been decreasing. Today it is still frequently used in the nursery and

kindergarten and with less frequency in the elementary classroom. Nevertheless there are still about 600 players who can be seen on the temple grounds on a sunny afternoon with a group of children listening to a story and intently viewing the scenes as they unfold on the stage of the paper theater.

KEROSENE PROJECTOR Japan

In 1949 the Christian Audio-Visual Center of Japan (AVACO) designed a kerosene projector for rural areas of Asia where electricity was not available. Since that time over 700 projectors have been exported to Korea, the Philippines, and South America.

The kerosene projector is used to project slides and filmstrips in a darkened room to from 30 to 50 people. The lamp's power is equal to an 80-90 watt electric lamp. A unique feature of this model is that after projection the lamp itself can be removed easily from the rest of the machine and hung up in the room to provide light. The kerosene projector sells for U.S. $55.00.



LANGUAGE AND CULTURE INTEGRATED THROUGH EDUCATIONAL MEDIA

Philippines

A unique and effective method for combining the teaching of a foreign language and the native culture has been developed for use in the Philippines to teach Tagalog to the American Peace Corps. Faced with a very short training period in which the American volunteers must gain some understanding of the language as well as the culture in which they will live for two years, the local teachers made use of the available facilities and designed a language-culture course.

Each morning for one week all students attend a film showing in which a weekly series of six short films is presented depicting average cultural situations. For example, the first film may show a Filipino boy talking to his buddy. The next film shows him talking to his parents, the next to the grocer, and the next to his priest. Each one thus demonstrates the many typical cultural situations the corpsmen will encounter daily in the rural areas. Following the six films the students move to a language laboratory where they listen and repeat, over and over, the soundtrack of the first film only. Following that exercise they attend a small discussion group with a native speaker to discuss the first film, and practice for the native speaker's correction.

The next day the same procedure is followed for the film showing of all six films. However, the language laboratory period is devoted to listening and repeating the soundtrack of the second film only followed by a discussion period concerning this film situation. In this manner the week's series of cultural situations is studied through film, language laboratory, and discussion periods. The next week a new series of films is studied.

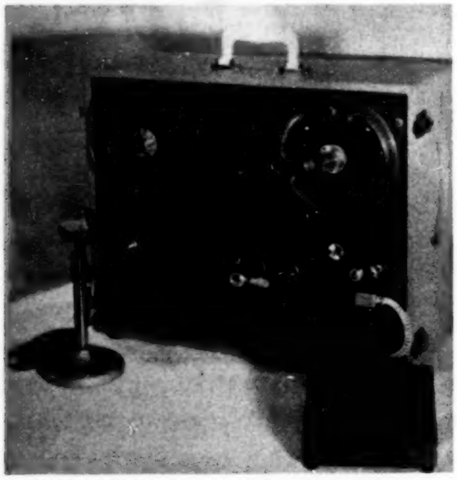
The Peace Corpsmen find this procedure rigorous and demanding because of its concentration and speed. The course lasts only six weeks, requiring 75 half-hour tapes of the dialogs, 25 half-hour tapes of grammar drills, and 128 minutes of 16mm sound films. As a result it brings together the linguist, anthropologist, and psychologist to develop the course content, and educational media specialists to provide the means of communication.

The final test for the student is that he role-play in Tagalog culture and understand this role in relation to other roles in the culture This leads to an insight into the attitude of the Tagalog and allows the foreigner to act in the culture with the least amount of friction.

LANGUAGE TAPE RECORDER Australia

The Royal Australian Air Force has installed a new type tape recorder for their language laboratory which incorporates the maximum facilities required for the aural-oral method. The current language laboratory systems involve the student's listening to a phrase recorded by a native speaker, imitating the phrase, and continuing through a sequence of phrases or short sentences in this manner. After a short period of this activity the student rewinds the tape to the beginning of the sequence and compares his pronunciation, intonation, etc., with the master's voice by listening to the entire sequence.

The major disadvantage of this system, as expressed by the RAAF language instructors, is the inability to compare each phrase immediately after it is given, rather than waiting until the end of the entire sequence of phrases to listen and compare the results. This language tape recorder was especially designed in Australia to overcome this limitation.



The student with this machine listens to a phrase previously recorded on one track of the tape, immediately repeats the phrase for recording on the other half of the track, presses a button on the control panel which rewinds the tape to the beginning of the phrase in a fraction of a second, and immediately listens to the master's voice and his pronunciation of that phrase for comparison and correction. If he is dissatisfied with his pronunciation he presses the button for immediate rewind to the beginning of the phrase again. This time he will listen and record his pronunciation again, compare it once more, and possibly record it over for the third time before continuing to the next phrase.

The unique feature of this machine is that it treats each phrase as an entity, rather than each sequence of phrases. The machine provides for instant rewind of each phrase with smooth push-button control, thus enabling the process of listening, speaking, comparing, and correcting of each phrase rather than each sequence of phrases. The student can practice a particularly difficult phrase over and over again before continuing to the next one which may be easy for him, requiring no repetitions. In this manner individual differences are provided for in that each student devotes more time to the particular phrases or sentences which are more difficult for him. The RAAF is currently experimenting with these new machines.

MUSEUM TEACHER TRAINING New Zealand

Thousands of New Zealand school children visit one of the four main museums each year under a highly organized and successful program of museum education. The Museum Education Officer, considered a member of a teachers' college administratively, annually advises the schools in his area what lessons are available at each grade level. An interested teacher selects the lesson to fit his program and arranges for the visit.

The uniqueness of the Museum Service and the success of the program is due largely to the assistance of students from the teachers' colleges. Instead of being sent for teaching practice into schools, groups of about 12 teachers' college students are assigned to the museums for periods of about four weeks. For the first week they receive training from the Education Officers in the use of museum material, are prepared to give certain lessons to small groups, and are taught to handle projectors and other audio-visual equipment. For the next three weeks they are engaged in part-time teaching.

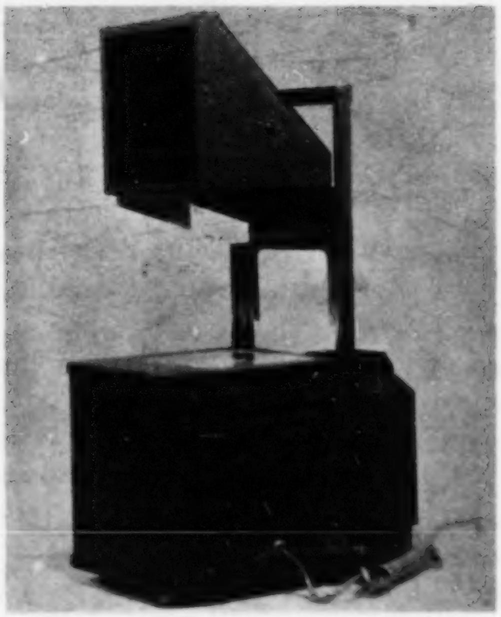
Two school classes usually arrive together at the museum with their teachers. Each class is met by an Education Officer and about six college students. After an introductory talk on the selected lessons, which may include slides or a portion of a film, the pupils divide into small groups, each under the care of a student. The groups move from case to case or to tables where handling materials are waiting, often carrying small stools. They sit around the cases, handle the materials, ask questions, and discuss the lesson topic. Mimeographed question papers are prepared for most lessons, and toward the end of the lesson pupils fill them in with sketches or with written answers. The question-and-answer sheets are taken back to the school as a summary of what has been learned and as a starting point for further study.

This system of training students from the teachers' colleges to teach small groups makes it possible for every pupil to make the most of a museum visit. It also gives very valuable training to the college students. About 400 of them benefit from this experience each year and students vie with each other for selection for training at the museum. Many say it is the most useful part of their teacher training course.

OVERHEAD PORTABLE PROJECTOR Republic of China

A private company is producing a comparatively small, inexpensive, overhead projector for use in the classroom. Recognizing the educational potential of the overhead projector and the little use made of it today in the schools of Taiwan because of the cost, size, and weight, an audiovisual specialist at a university in Taiwan designed the Overhead Portable Projector.

This machine has a projection stage of 5" x 5", a 300-watt projection lamp in conjunction with an optical system including a main condenser, a reflector, a specially designed substage condenser, and an optically ground and polished vacuum-coated front-surfaced mirror, in addition to the lens, air-cooling system, and electric control device. The projector weighs ten pounds and the case five pounds. Efforts are being made to encourage the use of this locally produced device by demonstrating the flexibility of using overhead transparencies in the classroom.



THE SCHOOL OF THE AIR Australia

Australia is a vast country with large, scarcely populated areas including ranches and farms covering thousands of acres located long distances from the nearest towns. One of the critical problems for these remote families was the lack of emergency medical facilities. To provide such facilities the Royal Flying Doctor Service was established to enable a doctor to fly immediately to an area of need. He is notified of the emergency through a radio network which includes over 15 radio bases and outposts located throughout the country. A significant proportion of the remote families have purchased two-way radio sets enabling them to call the nearest Flying Doctor base and enabling the doctor on duty to offer 'long-distance' diagnosis and advice before departing by small plane to the scene.

The children of these remote families received their education through correspondence education, educational radio where it was available from the cities, and from parents serving as teachers. Recognizing the educational potential of utilizing the Royal Flying Doctor Service radio network, the School of the Air was founded. Currently the state educational authorities supply the teachers in their statewide area who teach the regular academic subjects over the two-way radio network to supplement correspondence work. The students must have a transceiver of which there are now specially designed sets for simplicity of operation with only two controls on the front panel—a volume/on-off switch and a band switch. Its aerial power is 10 watts and its primary power is 12 or 6 volts DC.

To the children, the transceivers are keys to the great world beyond their view, of which so often they have only the least knowledge. The teacher knows her students by name and calls on them to answer questions. All students can hear the answer and can also speak to the teacher or other students. In this manner the whole lesson flows along like an ordinary schoolroom class.

The School of the Air does much more than supplement correspondence education. It breaks down the intangible barriers that lonely children often erect about themselves. And not only does it give them an opportunity to raise their educational levels nearer to their cousins in the distant cities, it breathes life into their studies and opens up to them a vast new education that lies, if they wish it, beyond their present horizons.

SYNCHROREADER Japan

There are about 1,000 schools in Japan using a device which the originating company, Canon, calls the Synchroreader. Since this first machine was marketed in 1959 several other designs, such as the Ricoh Synchrofax, with many programs, have become available.

The Synchroreader is a magnetic recording machine that records and plays back on the same sheet of paper. This sheet has a magnetized backing with pictures, writing, sketches, etc., on the front. The student listens to the recording while studying the accompanying material on the front of the sheet, thus providing simultaneous auditory and visual stimuli. Ready-made recordings are now being marketed but the teacher or student can record or erase with the press of a button. These devices are being used in schools for current events, languages, and arithmetic. The machines range in price from ¥28,000 to ¥150,000 (U.S. $77 to $360). An experiment was conducted with the Synchroreader as a teaching machine in arithmetic which is abstracted in the research section of this report.

The educational features of these machines include the following:

- --simultaneous appeal to both the eye and the ear;
- --only the necessary segment can be played back and the same section can be played many times;
- --ease of operation with push-button control;
- --the recorded sheet can be folded and sent by mail or can be readily filed and kept as reference material;

- --the sheet can be erased and reused;
- --the cost of the sheet is inexpensive (¥14 or U.S. $.04);
- --tone quality is good with the magnetic head moving in a spiral system across the back of the sheet.

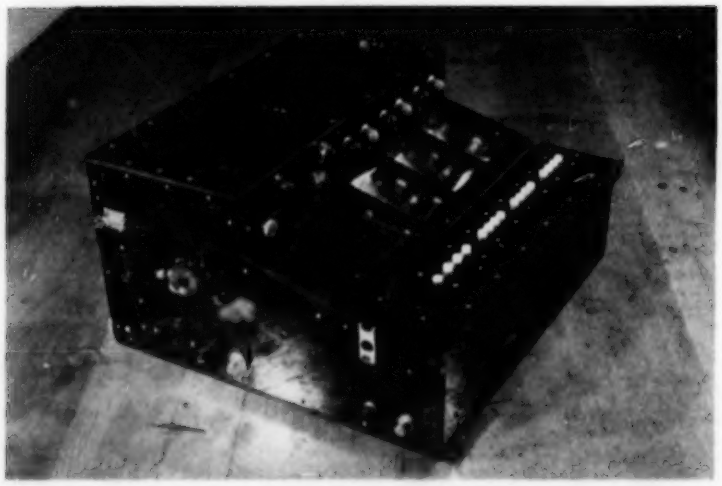
TEACHING MACHINE

Japan

Mr. Shogo Tanaka of Osaka University has designed the first teaching machine in Japan which utilizes the branching method of programming. The student exposes the first frame in window one, the problem window, by turning a hand knob on the side of the machine. After reading the information the student must respond to a question by selecting one of four answers. If he chooses the correct answer a blue lamp over window one lights to let him know he is correct. The next frame then automatically appears in window one.

If the student selects a wrong response, a red lamp lights to let him know he is wrong and the first remedial frame, window two, is lighted exposing remedial instruction followed with a question. If the student selects the correct answer, a blue lamp comes on over window two and the student returns to the original problem in window one to try again.

If, however, the student selects the incorrect answer on the first remedial frame in window two, the red lamp comes on and he cannot return to the first problem since window one will not respond. The student cannot continue from the first remedial frame in window two until he selects the correct answer. As soon as he selects the correct answer for the second window he returns again to the original frame in window one and trys again. This time if he selects the correct answer, frame two in window one automatically is presented. However, if he makes his second error the second remedial frame in window three lights up and he goes through the same process as he did with the first remedial



frame in window two. Upon returning to the original question in window one, if he makes his third error on the same question, the third remedial frame in window four lights up and he repeats the remedial process. After the third remedial frame there is only one possible answer not tried in window one, and it is the correct response, automatically presenting the next basic frame in the problem window. This process of branching with three remedial possibilities is provided with each basic frame appearing in the problem window number one.

TEACHING MACHINE: GAKKEN MEMORIZER Japan

The Gakken Company of Tokyo has designed a simple, inexpensive version of a teaching machine. The device is held in the hand of the student who reads a statement or question on the face of the machine. After responding overtly or covertly, a button on the back is pressed which brings forth the answer and the next question. In this manner Skinner's small-step method of programming is followed.

The device has been simplified by adopting the system of the camera in that each program is wound up in a roll and

put in place in the manner of loading a camera. To change the program a new roll is placed in the device which operates backward and forward with the press of a button. Currently the Gakken Memorizer is selling on the market for less than U.S. $3.00 with five programs. It has been designed primarily for home use.

THE WAJANG Indonesia

The Wajang is an ancient teaching material which has been very successful in Indonesia. Classical plays, legends, etc., have been handed down through the generations in the form of Wajang plays.

The Wajang is basically a type of puppet with movable joints, requiring great skill to handle. With many different faces and costumes to represent early figures, the accompanying music and narration have rendered this medium a fascinating and attractive means of story-telling and teaching.

One of the most interesting uses of the Wajang is under experimentation with the community development program. Trying to capitalize on the interest the Wajang plays have

for all ages, community development leaders are experimenting with the teaching of sanitation, cleanliness, etc., through the use of the Wajang, with costumes appropriate for today. The main question is to determine whether this medium, traditionally used to teach classical stories, can be used effectively in teaching modern ideas in community development.

APPENDIX

DIRECTORY OF ORGANIZATIONS CONDUCTING OR CAPABLE OF CONDUCTING MEDIA RESEARCH IN THE FAR EAST AND SOUTH PACIFIC

AUSTRALIA

Australian Broadcasting Commission, School Broadcasts (Radio) Evaluation Committee, and Steering Committee on School Television, 264 Pitt Street, Sydney.

Australian Council for Educational Research; can participate in any form of educational research; 369 Lansdale Street, Melbourne, Cl, Victoria.

Australian National University, Canberra City.

Commonwealth Office of Education; conducting educational radio and language training research; North Sydney, New South Wales.

New South Wales Institute for Educational Research, Sydney Teachers' College, University Grounds, New Town, New South Wales.

South Australian Institute for Educational Research, Wahle Park Teachers' College, Wahle Park, South Australia.

Tasmanian Institute for Educational Research, Hobart, Tasmania.

University of Melbourne, Audio-Visual Aids Department; conducts research on effects of audio-visual media; Parkville, N2, Victoria.

Victorian Institute for Educational Research, Victoria.

Western Australian Institute for Educational Research, Teachers' College, Claremont, Western Australia.

FEDERATION OF MALAYA

Ministry of Education: (1) Educational Measurement and Research Unit, (2) Department of Broadcasting, (3) Audio-Visual Aids Secretary, (4) State Audio-Visual Aids Committees in the eleven states.

University of Malaya, Petaling Jaya, Kuala Lumpur.

INDIA

Central Institute of Education, New Delhi.

National Council of Educational Research and Techniques, New Delhi.

National Institute of Audio-Visual Education, New Delhi.

National Institute of Basic Education, New Delhi.

National Institute of Fundamental Education, New Delhi.

INDONESIA

Council for Sciences of Indonesia (MIPI), Merdeka Selatan, Djakarta.

Department of Community Education, National Training Center, Djajagsri, Lembang, Bandung.

Radio Republic Indonesia, Djakarta.

Science Teaching Center, Research Section, Diponegoro 12, Bandung.

Teacher Education Office, Research Section, Bandung.

Teaching Aids Center, Research Section, Bandung.

University of Padjadjaran, Audio-Visual Section and Educational Research Section, Bandung.

JAPAN

Fukuoka College of Education, Institute of Audio-Visual Education; conducting various experiments on audio-visual materials; Shiobara-cho, Fukuoka City.

International Christian University, Audio-Visual Center; conducting television research at home and in the classroom and other experiments with film, tape recording, slides, and language laboratory as Masters theses; Mitaka, Tokyo.

Kagawa University, Department of Education; conducting experiments on educational film and television; Kagawa City.

Kyoto University, Department of Education; conducting communication research; Kyoto.

National Institute of Educational Research; conducting educational film research and experiments on teaching machines; Chojamaru, Kamiohsaki, Shinagawa-ku, Tokyo.

NHK Radio-Television Cultural Research Institute; conducting experiments and surveys on classroom radio and television; Atago-cho, Minoto-ku, Tokyo.

Osaka City Institute of Education; conducting television, film, and reading research; Kitakuhoji, Higashi-ku, Osaka.

Osaka Prefectural Institute of Education; conducting television research at home and in the classroom, and mass communication research on youth; Yohigaoka, Tennoji-ku, Osaka.

Osaka University, Department of Psychology; conducting television and film research; Osaka.

Shinano Education Association, Institution of Educational Research; private teacher-supported organization conducting research with classroom television; Asaki-cho, Nagano City, Nagano Prefecture.

Tokyo Metropolitan Institute of Education; conducting educational media research in public schools; Azabu, Minato-ku, Tokyo.

Tottori University, Department of Education; conducting experiments with audio-visual materials; Tottori City.

NEW ZEALAND

Auckland University, Department of Education, Auckland.

Canterbury University, Department of Education, Christchurch.

New Zealand Council for Educational Research, Brandon Street, Wellington.

New Zealand Department of Education, Wellington.

Otago University, Department of Education, Dunedin.

Victoria University, Department of Education, Wellington.

PHILIPPINES

Bureau of Public schools, Audio-Visual Center; in a vantage position to organize, coordinate, or conduct nationwide surveys and research on educational media in the public school system; Manila.

Bureau of Public Schools, Research and Evaluation Division; conducts surveys and research and compiles statistics on the Philippine public school system; Manila.

Department of Education, Board of National Education; compiles data obtained from studies, surveys, and researches on education for use as basis in formulating national education policies; Manila.

Philippine Center for Language Study; aids projects in the teaching of English as a second language; Taft Avenue, Manila.

Philippine Women's University; offers a graduate course in audio-visual education and has a speech laboratory; Manila.

Silliman University, Dumaguete City.

University of the Philippines, National Research Council of the Philippines; aids and organizes research in various fields; Quezon City.

University of the Philippines, Statistical Center; undertakes statistical surveys in various fields; Padre Faura Street, Manila.

REPUBLIC OF CHINA

Educational Radio Broadcasting Station, Ministry of Education, Taipei, Taiwan.

National Art College; producing educational television programs; Pan Cho, Taipei, Taiwan.

National Chengchi University, Department of Education, Taipei, Taiwan.

National Educational Materials Center, Ministry of Education, Taipei, Taiwan.

National Taiwan University, Audio-Visual Center, Taipei, Taiwan.

Taiwan Provincial Normal University, Audio-Visual Center, Ho Ping Tung Lu, Taipei, Taiwan.

REPUBLIC OF KOREA

Central Educational Research Institute; highly qualified educational research organization conducting various educational researches and surveys, now planning to undertake educational film research; 8 Yechang Dong, Chung Ku, Seoul.

Demonstration Audio-Visual Center; now planning to establish a research department to conduct research and surveys on all aspects of audio-visual education, staffed with six trained specialists; 8 Yechang Dong, Chung Ku, Seoul.

Kyunggi Do Educational Research Institute; capable of conducting experiments on utilization of audio-visual materials; Sudaemun Ku, Seoul.

Seoul City Educational Research Institute; capable of conducting experiments on utilization of audio-visual materials; Taepyung Ku, Seoul.

Seoul National University, School of Education; best qualified to conduct experimental research, has just set up a small-scale Audio-Visual Center; Seoul.

Yonsei University, Audio-Visual Center; capable of conducting research with language laboratory and programmed teaching; Seoul.

THAILAND

Chulalongkorn University, Department of Educational Research, and the Audio-Visual Center, Faculty of Education, Bangkok.

College of Education, Prasarnmitr, Audio-Visual Center, Bangkok.

Coordination Center for Southeast Asian Studies, 12/1 Saladaeng Soi 1, North Sathorn Road, Bangkok.

Ministry of Education, Research Division and the Division of Educational Information, Bangkok.

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